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INDEX.

Abdominal pain, 247; section, medico-legal aspect of, 3; sections, 429, 490; surgery, progress, 596
Abortion, double pneumonia complicated by, 564
Abscess, cerebral, 295; hepatic, 179, 228; of ear, 60; of mamma, 360; psoas, 544; pyemic, 37
Accidents from choloform, 42
Acid, trichloracetic, as an astringent and caustic, 296
Acne, ezema, etc., prescription for, 365; vulgaris, treatment for, 11
Acute myelitis, 251; phthisis, 56; tonsillitis, 484
Addison's disease, 250
Adonidin, 179
After-pains, cupric arsenite for, 519
Air-passages, menthol in diseases of, 123
Agaricic acid, 179
Ague, helianthus for, 19
Albumen, new reagent for, 513
Albuminuria, 513; in children, 533; of pregnancy, 153; paraldehyde, a cause of, 532; protides in various forms of, 228
Alcoholic entailment, hereditary, 433
Allegheny County Medical Society, 34, 244, 454
Amateur doctoring, 44
Amaurosis, tabetic, 316
Ambulance work, New York, 462
Amenorrhœa, 297; prescription for, 179
American girls, health of, 592: Medical Journalism, 75; Orthopedic Association, 289
Ammonium mixture, 365
Amœba coli in dysentery, 316
Amputate, when to, 388
Anæsthetics, deaths from, 596
Analine colors in therapeutics, 177
Anasarca by theobromine, 43
Anemia, pernicious, 148; in young women, 30
Aneurisms, 529; treatment of external, 360
Angina, application for, 513; pectoris, 373
Animal parasites, remedy for, 413
Ankle-joint disease, 482, 483; tuberculosis of, 247
Anodyne effects of electric lights, 417; lotion, 225
Anthrax, 90
Antipyretics and fever, 297
Antipyrine, 552; counter-indications, 295; in dermatology, 251
Antiseptic, hydronaphthol as an, 555; midwifery, 286; regimen in contagious diseases, 19
Antiseptics, 469
Antispasmodic, strychnine as, 337
Anus, fissure of, 514
Apoplexy, 40
Aristol, 111, 258, 465, 471; in burns, 573; in gynecology, perscription, 296
Arsenite, cupric, 519
Ascites, 552
Asclepiad, 362
Asepsis, practical, 367
Ashes, preservation of, 87
Asthma, 247; treatment of paroxyms, 333
Asthmatic treatment, 588
Ataxia, Friedreich's, 554
Athritis, gonorrhœal, 514
Atresia of the external auditory meatus, 283
Atropia belladonna and solanum nigrum, 307
Auditory meatus, atresia of the external, 283
Australias "fastness," 151
Babies, sedative for, 464
Baby farming, 530
Bacillary partnerships, 392.
Bacteria, relation of, 49; reproduction of, 511; spontaneous access of, to bladder, 453
Baldwin. J. F., chloroform in obstetrics, 280
Balsams, 14
Barker, T. R., obstetrical don'ts, 561
Baths, cold, in typhoid fever, 227
Beef, dried, poisoning by, 223, 294
Belfield, W. T., operations upon enlarged prostate, 422
Berberis aquifolium, 414
Beri-beri, 492
Berks County Medical Society, 83
Bidwell, W. D., poisoning by dried beef, 294
Biliary fistula, 531
Billings, F. S., preventive inoculation, 185
Birch beer, 60
Birmingham, American doctors in, 225
Bishop, S. S., menthol in diseases of air-passages, 123
Bismuth lotion, compound, 416
Black eyes, 513
Black fever, 19
Black rot, 151
Blackwood, W. R. D., chloroform in obstetrics, 333; progress in medical and surgical electricity, 279
Bladder, spontaneous access of bacteria to, 453
Blindness, total, following shock, 466
Blood cells, new, 366
Blubaugh, C. B., removal of dislocated crystalline lens, 199
Board of Health, Philadelphia, 510
Bone-grafting, 315
Book Reviews:
Abel, Mrs. M. H., Cooking, 89
Anderson, W., Mineral Springs of California, 44
Archives of Clinical Medicine, German, 88
Ballou, W. R., Equine Anatomy, 178
Barkam, L., How to Preserve Health, 59
Bourneville, Sollier et Pilliet, L'Épilepsie, L'Histerie, et L'Idiotie, 336
Bryce, C. A., Physician's Companion, 336
Childs, Geo. W., Recollections of General Grant, 129
Clark, J. E., Physical Diagnosis, 363
Covering, J. L., Headache and Neuralgia, 336
Dermatology of Syphilis, Archives of, 110
Dock L. L., Materica Medica for Nurses, 463
Flint, Austin, Auscultation and Percussion, 463
Fowler, J. K., Practical Medicine, 276
Garretson, J. E., Oral Surgery, 276
Gross, S. W., Impotence, 463
Gunn, Dr. Moses, Memorial Sketch of, 512
Gynecological Association, Transactions, Vol. II, 59
Hare, H. A., Epilepsy, 363; Therapeutics, 551
Hurd, E. P., Neuralgia, 44
Jackson, E., Refraction and Diseases of Eye, 178
Jacobi, A., Intestinal Diseases of Children, 276
Keating, J. M., Diseases of Children, 203
Keating, J. M., and Hamilton, H., Pocket Medical Lexicon, 391
Kelsey, C. B., Diseases of the Rectum and Anus, 110
Leffingwell, A., Vivisection, 463
Mack, C. S., Philosophy in Homœopathy, 13
Martin, E., Minor Surgery and Bandaging, 463
Maryland Med. and Surg. Soc., 551
Materia Medica, Newer, 463
Medical Bulletin Visiting List, 578
Mills, W., Comparative Physiology, 441
Morris, H., Practice of Medicine, 391
Moure, E. J., Maladies du Larynx, 89
Nancrede, C. B., Anatomy of Dissection, 178
Noyes, Diseases of Eyes, 13
Pennsylvania Physicians, 463
Physicians Visiting List, 578
Powell, W. M., Diseases of Children, 415
Prudden, T. M., Dust and its Dangers, 363
Robinson, D. H., Latin Grammar of Pharmacy and Medicine, 441
St. Clair, R. N., Electricity in Surgery, 512
Sajous, C. E., Annual of Universal Medical Sciences, 463
Salomonson, C. J., Bacteriological Technology, 463
Satterlee, F. R., Rheumatism and Gout, 59
Shoemaker, J. V., Ointments and Oleates, 464
Smith, J. L., Diseases of Infancy and Childhood, 441
Southern Surgical and Gynecological Association, 59
Starr, M. A., Nervous Disease, 336
Stemen, C. B., Railway Surgery, 152
Taylor, F., Practice of Medicine, 276
Witthaus, R. A., Chemistry, 441
Wood's Medical and Surgical Monographs, 13, 178, 276, 336
Boils, microbous, 594
Borborygmus, voluntary, 90
Boric acid for tuberculosis, 250
Bougies, use of, 360
Bovine blood, and meat juice, in therapeutics, 285
Bright's disease, case simulating, 573
Bright's disease, treatment of chronic, 388
Bromide and iodides by enema, 512; of ethyl, 90
Bromides in epilepsy, 555
Breath, bad, mixture for, 416
Bromole, 367
Bronchitis, chronic, 225; phenacetin in, 11

Broncho-pneumonia, chronic, 290
Brown-Séquard mixture, 153
Bruises, for recent, 225
Bubo, 588
Bubos, gonorrhœal, parenchymatous injections of iodine for, 221
Bunion, operation for, 251
Burdock seed, elixir of, a menstrual regulator, 314
Burns, aristol in, 573; prepared cotton for, 297; treatment of, 296, 513, 529
Cæsarian section, 529
Calomel as a diuretic, 204; toxic effect in the presence of chlorides of the alkaloids, 392
Cancer, deaths from, 204; of stomach, 1, 338, 579; pathology of, 397
Cannabis indica for dyspepsia, 226; for neurosis and gastric dyspepsia, 311
Capsicum, tincture of, 524
Carbuncle, gangrenous, 552
Carcinomata mammæ, 9
Cardiac ossification, 391
Caries, Potts' spinal, 66; dental, mixture for, 114; of teeth, transmission of, 335
Cascara amarga, 90, 152; wine of, 296
Castration in women, 364; nervous symptoms due to double, 130
Cataract extraction, intraocular syringing in, 204; immature, 591; resorption of immature, 565
Catarrh, gastric, 1, 274, 513; of naso-pharynx and middle-ear, surgical means applied to, 121
Catha edulis, 415
Catheter fever, 112
Catskills, 175
Cattle, tuberculous, 66
Census of 1890, 550
Cephalo-hematoma, 38
Cerebral abscess with epilepsy, 295; hemorrhage, 130
Cervix, amputation of, 9
Chancroids, phagadenic, 546
Chattanooga, 225
Cheatham, W., massage of middle ear, 250
Chicago Academy of Medicine, 325
Chigger, 550
Childhood, disease of in relation to tubercle, 67
Children, albuminuria in, 533; digitalis in diseases of, 364; diseases of, 359; nourishment of, 16; summer disturbances of, 113
Chinese remedy for diphtheria, 290
Chloralamid, administration of, 392; formula for, 416
Chloroform, 392; accidents from, 42; death under, 514; in obstetrics, frequent use, 9, 280, 333
Cholecystotomy, 6, 421
Cholera infantum a neurosis, 73; in Mecca, 129; morbus, prescription for, 225; new treatment for, 176; salol in, 90, 464
Chorea, 566
Chromic acid for perspiring feet, 153; in cysts, 60
Chronic dyspepsia, 314
Chyluria, 338
Cigarette, accident caused by, 311
Cincinnati, letters from, 312, 440
Circumcision, 37
Clevenger, S. V., Chicago Academy of Medicine, 325
Climate and disease, 247; or weather fever, 62; therapeutic value of, 514
Coagulating process, 408
Coal oil, 59
Cocaine anæsthesia, 14; in short operations, 91; ptyalism of pregnancy, 226
Cocktail, gin, 13
Coffee, uses of, 366
Coimbra, University of, 109
Coinage and infection, 510
Cold, to break up a, 224
Color-blindness, alcohol and tobacco causes of, 152
Conjunctivitis, subacute, 247
Constipation, chronic, 532; diarrhœa of, 574; treatment of habitual, 512
Continuous bath for typhoid fever, 87
Convulsions in chlorosis, treatment of, 333; puerperal, 34
Convulsive, acute, seizure, the result of a fish bone in the rectum, 229
Cornea, suppurating ulcer of, 308
Corneal disease, galvano-cautery in, 467
Coryza, menthol in, 115
Cough mixture, 225; of nasal origin, 428
Country doctor, 223
Coxalgia, 26
Cranium, fracture of, 15
Creasote in the treatment of diseases of the respiratory organs, 295
Cremation, 13
Crime, study of, 329
Crothers, T. D., American medical journalism, 75; inebriates, 126; inebriety in America, 144
Currier, A. F., anemia, 30
Cutter, Ephraim, food and tubercle, 378
Cystitis, 57, 180; in women, 91
Cysts, chromic acid in, 60
Cysts, serous and cystic formations, 399
Deafness, traumatic, pilocarpine for, 17
Deahofe, L. F., pneumonia, 125
Death, test for, 514
Delirium, 311; tremens mixture, 153
Delstanche instrument for massage of middle-ear, 250
Dental caries, mixture for, 114
Dentifrices, antiseptic, 364
Dermatitis, excretal, 467; herpetiformis, 163; multiformis, 217
Dermatology, antipyrine in, 251
Diabetes, case of, 578; formulæ for, 392; insipidus, 179; is it contagious? 204; mellitus, 233; sulphonal for, 337, 487
Diabetics, diet for, 596
Diagnostic tables, 180
Diarrhœa of constipation, 574; morning, 85; prescription for, 333; summer, in adults, 179; tropical, 111
Dietetic problem, 15
Digestion, pancreatic, in marasmus, 393
Digitalis, 464
Diphtheria, 221, 597; and scarlet fever, prevention of, 549; antiseptic tincture for, 513; Chinese remedy, 290; etiology of, 53; from animals, 468; identity of human and animal, 442; local application for, 365; of meatus urinarius, 152; potassium iodide in, 579; puerperal, 37
Diphtheritic membrane, 226
Dismenorrhœa, obstructive, 113
Diuretic and drastic, 416; calomel as a, 204; formula, 416; third plague of Egypt as, 362
Doctor, country, 223; habits of, 550
Doctoring, amateur, 44
Donnellan, P. S., tincture of capsicum, 524
Douglas' cul de sac, operation, 566
Drinks, summer, 61
Dropsy, cardiac, remedy for, 333
Drugs, exact doses for, 488
Drunkenness, what is it, 304
Dunlap, W. H., dermatitis multiformis, 217
Dwight, H. E., medical education, 566
Dysentery, amœba coli in, 316
Dysmenorrhœa, 179
Dyspepsia, 472; atomic, 484; canabas indica for, 226
Dyspnœa, fatal, 442
Ear, abscesses of, 60; middle, catarrh of, 519
Earache, mixture for, 115
Ears, operation for prominent, 514
Eastlake, W. de Lano, sulfonal, 261
Eczema, acute, formula for, 413; encrusted, 36; formula for, 416; infantile, 36, 360; of hands, prescription, 290
Eclampsia, puerperal, 250, 314, 367
Epilepsy, trephining for, 596
EDITORIALS:
Abortionist, an alleged, 435
Acclimitization, 310
Address in medicine, 173
American Medical Association, Journal of, 548
Arsenical peripheral neuritis, 109
Bartholow's retirement, 389
Bermuda, 435
California sanitaria, 36
Calomel, subcutaneous injections of, in syphilis, 509
Capital punishment, 222
Christian Science Institute, 486
Christmas greetings, 575
Consumption cure, new, 485
Disavowal, a, 588
Disease neurotic? Is all, 86
Dixon on inoculation for tuberculosis, 458
Eclectics, 310
Ethics, medical, 361
Exalgine, 128
Fever, typhoid, psychic sequelæ of, 334
Go slow, 589
Greetings, Christmas, 575
Indianapolis, medicine in, 58
Irregulars, 202
Journal of American Medical Association, 548
Latin, study of, 361
Magnetic healing, 575
Medical ethics, 361
Neuritis, arsenical peripheral, 109
Neurotic? Is all disease, 86
Orexin, 150
Phenacetin, 267
Physiological therapeutics, 222
Poisons, sale of, 128
Protozoa, are they immortal?
Quacks and their methods, 291
Sanitaria, California, 12
School buildings, unsanitary, 249
Sitka, need of hospital at, 249
Students' number, 265
Syphilis, treatment by subcutaneous injections of calomel, 509
Therapeutics, physiological, 222
Tuberculosis, Dixon on inoculation for, 458; investigations, priority in, 414; Koch's remedy for, 526; production of immunity from, 291
Typhoid fever, psychic sequelæ of, 334
Winter city, 549
Education, American medical, 529
Eggs, how to boil, 111
Egypt, third plague of, as a diuretic, 362
Electric lights, anodyne effects of, 417; shock, 175
Electrical treatment of palsy, 524
Electricity, 540; in gynecology, 551; in medicine, 511; in pelvic disease, 340; in practice, 513; progress in medical and surgical, 279
Electrocution, 151, 174
Empyema, 529
Endocarditis, 56
Endometritis, 537; chronic cervical, 360, 545
Epidemics at Sailors' Home, Xenia, 301; recent, 9
Epididymis, tuberculosis of, 248
Epilepsy, 452; bromides in, 555; following dental caries, 442; hemiplegic, 175; prescription for, 179; treatment of, by dieting, 593
Epileptic mixture, 153
Epileptoid and epilepsia, relation of,
Epiphysitis, acute, 467

Epithelioma, metastatic, 200; of lip, 127
Ergot for catarrhal pneumonia, 573
Erlich's test for typhoid fever, 464
Erysipelas, 488
Erythromelalgia, 489
Etherial solutions, 111
Etiology of diphtheria, 53
Euphorbia pilulifera, 89
Euphorine, 472
Excision of cranium, 226
Exercise in pelvic diseases of women, 466
Extraction of dislocated lenses from the eyes, 226
Eye clinic, 57
Eyes, extraction of dislocated lenses from, 227
Eye-strain, 169
Faith healer, manslaughter by a, 366
Farinaceous food, rearing of infants, 228
Fathers and sons, 581
Fatigue and hysteria, resemblance between, 43
Feces, incontinence of, neurotic, 135, 466
Feet, perspiration of, 365, 531
Ferriginous pills, 416
Fertility, Kansas, 465
Fever, black, so-called, 19; climate or weather, 62; catheter, 112; Erlich's test for typhoid; 464; hay, 339; prescription for, 416; mixture, 588; mountain, 75; puerperal, 9; contagion of, 364; treatment of heat in, 365; scarlet, prevention of, 549; syphilitic, 315; typhoid, 246, 251, 373, 438, 577,; and scarlet, urine in, 179; hip-joint disease in, 482; nervous sequelæ of, 342; salol in, 465
Fissure, pleural, 551
Fistula, biliary, 531
Florida on wheels, 551
Fœtal head, delivery of, 409
Food and drugs, adulteration in, 442; and tubercle, 378; for convalescents, 226; infants, 111
Foot and mouth disease, a prophylactic to scarlatina, 233
Fox, L. W., resorption of immature cataract, 565
Fractures, compound, of tibia and fibula, 247
France, antituberculous inoculations in, 554; foreign medical students in, 177; practitioners in, 553
French medical bill, 177
Frost bite, 552
Funis, prolapse of, 340
Further researches by Koch, 598
Furuncular affections, treatment of, 413
Galloway, C. M., epidemics at Sailors' Home, Xenia, 301
Galvanic current in gynecology, 471
Gangrene, 553
Gargle, McSherry's, 464
Gargling, 112
Garretson, letter from, 40
Gasserian ganglion, excision of, 490
Gastric cancer, treatment of, 416; catarrh, 513; papoid in, 274
Gastritis, acute, 484
Gastro-hepatic tonic, 224
Gibier, Paul, Pasteur's method, 327
Gin cocktail, 13
Gingivitis, diabetic, treatment of, 391
Gleet, 153; prescription for, 225
Goats, vaccination from, 43
Gonorrhœa, 91; injection for, 296
Gout, 58
Grippe, influence of, 252
Guaiacum as a purgative, 491
Gynecology, aristol, prescription, 296; electricity in, 551; galvanic current in, 471
Hair, dressing for, 508; tonic, 365
Hall, R. B., cholecystotomy, 6, 421
Hallucinations, homonymous hemiopic, 340
Hamamelis for nasal polypi, 531
Hansell, H. F., sympathetic ophthalmia, 540
Hare-lip, double, 561
Harkin, A., cholera infantum, 73
Hawes, J., clinical lecture, 497
Hay fever, 339; prescription for, 416
Headache, astigmatic, 255; massage in, 514; mixture, 153
Health, Philadelphia Board of, 510
Heart, hypertrophy of, 19
Heat and its effects, 114
Hematuria, 60; causes of, 130; rhubarb a cause of, 112
Hemolymph glands, prevertebral, 556
Hemoptesis, 10, 247; prescription for, 179
Hemorrhage, cerebral, 130; uterine, 247
Hemorrhoids, 61; excision of, 411; internal, treatment of, 225; salve for, 365, 588, 594
Hepatic abscesses, 228
Hepatic abscess, 179
Heredity and responsibility, 593
Hernia, 216; inguinal, 547; ovarian, 61; operations for, 212; radical cure for, 108; radical treatment of, 97; strangulated, ice in, 155; tobacco in, 464
Hints to the unfortunate, 44
Hip-joint disease in typhoid fever, 482
Hodgkin's disease, 488
Hospital facilities, 335; Medico-Chirurgical, 57
Hospital Notes:
Jefferson College Hospital, 573, 588
Medico-Chirurgical Hospital, 36, 172, 200, 247, 290, 333, 359, 413, 456, 545, 573, 588
Philadelphia Hospital, 10, 83, 108, 127, 148, 247, 546, 588
Polyclinic Hospital, 574
University of Pennsylvania, 457, 484, 545
Hospitals, insane, 55; large, 462; overcrowding, 87
Homœopathic concessions, 438
Homœopathy strikes the Briton, 226
Honor where due, 59
Hughes, C. H., psychopathic sequences of hereditary alcoholic entailment, 447; somnambulism, 8
Hughes, W. E., clinical lecture, 1
Hunger and infection, 510
Hutchinson, W. F., electricity in medicine, 511; West Indies, 594; West Indies as a sanitarium, 209, 277, 382, 425, 506, 569
Hydatia cysts, 297
Hyderabad commission, 15
Hydrocele, 547
Hydrogen, peroxide, 264
Hydro-naphthol, 111
Hydrotherapy in typhoid fever, 577
Hydrothorax, 484
Hygiene and Dermography, International Congress of, 462
Hyoscine, 251
Hypertrophy of prostrate, 154
Hypnotics, 61
Hypnotism, 468, 478; and the Church, 111
Hysterectomy, mortality from, 579
Hysteria and fatigue, resemblance between, 43
Hysteria, experimental, and fatigue, 130
Ice in strangulated hernia, 155
Ice, in sweats of phthisis, 114
Ichthyol, 130
Iliac vein, obstruction of, 339
Impression, maternal, 314
Indian medicine men, 423
Indigestion, paroxysmal spasmodic, 179
Inebriates, legal treatment of, 126
Inebriety in America, 144
Infant feeding, 594
Infantile eczema, 364; pneumonia, 179
Infants, farinaceous food in rearing, 228; food, 111; hygiene of newborn, 532; mortality of, 576
Infection and hunger, 510; by coinage, 510
Infectious diseases, causation of, 201
Inflammations, intra-pelvic, 214
Influenza, rumors, 290
Injustice to an editor, 594
Inoculation, preventive, 185
Insane hospitals, 55; treatment of, 9
Insanity, acute confusional, 90; jealous, 175; psychical aspects of, 521
Insomnia, causes of, 44; in children, 132
Intestinal obstructions, 595
Intra-ocular syringing in cataract extraction, 204
Intra-pelvic surgery, 9; 167
Intra-pelvic inflammation, 214
Iodides in scrofula, 114
Iodine, parenchymatous injections of, for gonorrhœal bubos, 221
Iodol, 172
Ipecacuanha in labor, 594
Iron, glycerine, and chlorate of potassium mixture, 525; pills, 471
Itching, 391
Jackson, E., suppurations, ulcer of cornia, 308
Jacobson, Nathan, radical treatment of hernia, 97
Jalko-Grintsevich, rupture of uterus and vagina, 106
Jersey, ungrateful, 88
Jewett, H. O., medicine, past and present, 100
Joint disease, 534
Journalism, American medical, 75
Jugular vein, ligation of internal, 559; pyemia and thrombosis of internal, 559
Kansas fertility, 465; mortgages, 335
Keen, W. W., clinical lecture, 559
Keim, C. H. Von, administration of morphine by the nostrils, 427
Kelly, J. M., restoration of nose, 151
Kentucky State Medical Society, 82
Keratitis, phlystenular, 161
Kerr, N., hypnotism, 478
Kidney, absence of, 294
Kime, J. N., operations for hernia, 212
King, W. P., wiring of symphysis pubis, 450
Klein, E., etiology of diphtheria, 53
Kola and caffeine, 19
Koumis cure, 18
Krawrosis vulvæ, 316
Labor, artificial, induction, 296; eratis pain in, 226; induction of premature, 155
Lachrymal obstruction, 538
Lamb's blood, transfusion of in typhoid, 315
Laparotomies, five, 245; for tubercular peritonitis, 579
Laplace E., clinical lecture, 215, 397; medical teaching abroad, 257
Laryngitis, 531
Lateral sinus, opening of, 559
Lens, dislocated crystalline, removal of, 199
Leucocytosis, inflammatory, 11
Leucorrhœa, treatment of, 365
Levis, Dr. J. R., 487
Lip, epithelioma of, 127
Longevity, 40
Lucknow hospital and women doctors, 390
Lupus, 247
Lydston, G. F., study of crime, 329
Magnetism, transfer of disease by, 131
Malaria, intra-venous injections of quinine in, 19; treatment of, 225
Mammæ, carcinomata, 9
Mammary gland, abscess of, 360
Manganese, 488
Mania, the dosing, 293
Manley, T. H., serous cysts, 399
Marasmus, pancreatic digestion in, 393
Marriage, as a remedy, 592
Marriageable age in India, 466

Massage, 576; in headache, 514
Mastitis, puerperal, 563
Mastoid, trephining of, 559
Maté, 174
Maternal and paternal impressions, 314
Mattison, J. B., triple narcotic addiction, 504
McCann, C. L., poisoning by dried beef, 223
Meat-juice and bovine blood in therapeutics, 285
Meatus, atresia of the external auditory, 283
Meatus urinarius, diphtheria of, 152
Medical and surgical electricity, progress in, 279; education, higher preliminary, 566; instruction, 576; student, foreign, in France, 177; teaching abroad, 257
Medicine, new era in, 349; past and present, 100
Medico-Chirurgical Hospital, 415
Medico-Legal, 338
Meningitis, cerebro-spinal, 488; traumatic cervical, 373
Menstrual regulator, 314
Mental diseases of women, correction of sexual functions in, 442
Menthol in diseases of air-passages, 123; in pruritus, 365
Mercurial flannels, 19
Mercury, biniodide of, 515; hypodermically, 179; succinimide of, in syphilis, 417
Methacetine, 225
Metritis, 537; bromides in chronic, 511
Metrorrhagia, 484
Microbes, virulence of, 14
Middle-ear, catarrh of, 121; massage of, 250
Midwifery, antiseptic, 286
Milk, boiled, nutritive value of 115; peroxide of hydrogen for sterilization of, 552; poisoned by plants, 314
Mississippi Valley Medical Association, 433
Mitchell, E. W., vomiting of pregnancy, 104
Mitral diseases, 1
Montgomery, E. E., chronic metritis 537
Moore, C. C., operation in Douglas' cul de sac, 566.
Morality, Russian, 390
Morphine, administration of, by the nostrils, 427
Morris, R. T., peroxide of hydrogen, 264
Mosquera's food products, 553
Mountain fever, 75
Murrell, W., piratical publishers, 439
Mussel poisoning, 129
Myelitis, acute, 251; transverse, 573
Myers, A. F., insane hospitals, 55; placenta prævia, 501
Myers, T. H., pressure paralysis, 505
Myrtle, 130
Myxœdema, 553
Nævi, caustic for, 416
Naphthol-b, 552
Narcotic addiction, triple, 504
Nares, ointment for fissures and eczema of, 416
Nasal reflexes, 524; polypi, 531
Naso-pharynx, catarrh of, 121
Nebraska, febrile affection in, 555
Necrosis, mineral acids in, 417
Nephritis, acute, 1
Nerve restoration, 226; stretching, 547
Nervous diseases, alteratives in, 201; centers, surgery of, 442
Neuralgia, formula for, 416; chloride of sodium in facial, 154; supra-orbital, 573; tablets, 153
Neutritis of viscera, 533; peripheral, 63
New cure, 550; "Idea," 335
NEW INSTRUMENTS:
Koch's hypodermic syringe, 579
Newspaper reading, 338
New York Academy of Medicine, 482; ambulance work, 462
Nipples, fissured, 44
Noma following typhoid, 391
Norristown Hospital, 151
Nose, restoration of, 151; injury to, 41; wash for, 544
Nursing bottle, 38
Obesity, diet in, 90
Obstetical don'ts, 561
Obstetrics, 497; chloroform in, 9, 280, 333; perfected, 577; text-books on, 438
Obstructive dysmenorrhœa, 112
Œdema of scrotum, 588
Œsophagus, spasmodic stricture of, 484
Ohio State Medical Society, 8
Ointments, absorbtion of, 390
Operations, short, cocaine in, 91
Ophthalmia, sympathetic, 538, 554
Opium habitués, 541
Orchitis, 547
Orexin, hydrochlorate, 553
Osteo-malacia, 482
Osteomyelitis from pneumococci, 251
Ovarian hernia, 61; tumor and pregnancy, 87
Ovaries, prolapse of, 131; removal of, 13
Ovaritis, chronic, 413
Oysters, 127
Ozena, 525
Palate, cleft, 561
Pamphlets, 14, 44, 60, 89, 110, 129, 152, 178, 204, 313, 336, 391, 441, 487, 531
Pancoast's pills, 224
Panicum, as food, 489
Papoid in gastric catarrh, 274
Paraldehyde a cause of albuminuria, 532; mixture, 365
Paralysis, general, trephining for, 15; pressure, prognosis of, 505
Paraplegia, ataxic, 588
Paris, letter from, 175
Parotid gland, 487
Parotitis, 38
Parovarian cyst after delivery, 430
Pasteur's method, 327
Pavy, F. W., diabetes mellitus, 233
Pediculi pubis, new remedy for, 225
Pediculosis pubis, 588
Pelton, A. M., zinc sulpho-carbolate, 363
Pelton, C., absence of kidney, 294
Pelvic clamp, novel, 450
Pelvic disease, electricity in, 340
Pelvic diseases of women, exercise in, 466
Pennell, W. W., honor where due, 59
Pennsylvania and Maryland Medical Associations, 221
Pericarditis, 35
Periostitis, 38
Peritonitis, 227; tubercular, 490
Peroxide of hydrogen, 38, 264, 552
Pessaries, changing, 468
Pharmaceutical preparations, clinical observations on, 598
Pharmacy, modern, 148
Pharyngitis, acute, 588
Phenacetine, 179, 264; in whooping-cough and bronchitis, 11; pharmaceutical and clinical observation on, 598
Philadelphia County Medical Society, 384, 409, 429, 541; Electro-therapeutic Society, 524; Hospital, 56
Phthisis, acute, 56; mortality of widowers from, 155
Physical peculiarities of prostitutes and thieves, 130
Physician as a witness, 584
Physiological theory, a, 592
Pigmentation of skin in pregnancy, 434
Pills, quinine, 109
Pilocarpine, 464; for traumatic deafness, 17; in œdema, 416
Piscidia erythemia, 467
Placenta prævia, 181, 501
Pleasure and pain, 510
Plenckïs solution, 69
Pleurisy, 148; acute, prescription for, 333; double, 490; purulent, 226; sorbefacient in, 333
Pneumonia, 125, 56; acute lobar, 588; catarrhal, ergot for, 573; double, complicated with abortion, 564; infantile, 179; mixed, complicating heart lesion, 373
Porro operation in Ohio, 9
Post-epileptic automatisms, 87
Potassium iodide, 508, 579
Practitioner, "pointers" for general, 428
Pregnancy, albuminuria of, 153; chills during, 335; cocaine in the ptyalism of, 226; pigmentation of skin in, 434; "silver lines" of, 180; vomiting in, 151; vomiting of, 104
Prescriptions from Vanderbilt clinic, 153
Problems, therapeutic, 43
Prostate, enlarged, with cystitis, 333; hypertrophy of, 154; operations upon enlarged, 422
Prostatitis, 180
Prostitutes and thieves, physical peculiarities of, 130
Proteids in the urine in various forms of albuminuria, 228
Prurigo, ointment for, 416; pomade for, 508
Pruritus ani et vulvæ, prescription for, 225; hiemalis, 556; menthol in, 365; remedy for, 365; vulvæ, 588
Psoas abscess, 544
Psychical aspects of insanity, 521
Publishers, piratical, 439
Puerperal fever, contagion of, 364; convulsions, 34; diphtheria, 37; eclampsia, 250, 314, 367; fever, 9; mastitis, 563; treatment for, 597
Pulmonary circulation, effect of drugs on, 492
Pyemic abscesses, 37; infection, 38
Pyoktanin, 129, 152, 513
Quinine, intravenous injections of, in malaria, 19; pills, 109; solution, tasteless, 19; vehicles for, 341
Rachitis, 153
Radius, non-union of fractured, 482
Railway surgery, 335, 390; association, 388
Ravogli, A., dermatitis herpetiformis, 263
Reading, G. E., cardiac ossification, 391
Rectum, ballooning of, 250; operation for stricture of, 418
Red nose, treatment of, 19
Reed, B., cupric arsenite for after pains, 519
Respiratory organs, creosote in the treatment, 295
Rheumatic, chronic so-called, 465; rheumatism, acute, 588; complicating typhoid, 84; Turkish baths in, 242
Rhubarb a cause of hematuria, 112
Rhus and ivy poisoning, specific for, 487
Rib-fracture from muscular action, 384
Richardson, C. N., surgical means in treatment of catarrh of naso-pharynx and middle-ear, 121
Rickets, 111
Ridenour, A. W., hernia, 26; removal of parotid gland, 487
Rider's bone, 465
Roberts, J. B., clinical lecture, bacteria, 49
Rohé, G. H., fibroid tumors of uterus, 475
Roussel, A. E., chorea, 566
Russian morality, 390
Saliva for warts, 529
Salol in cholera, 90; in typhoid fever, 465: novel use of, 13
Salves, cooling, 112
Sanitary teaching, 340
Sappington, P. F., modern pharmacy, 148
Sapræmia, 38

Sarcophagy in Scotland, 367
Scabies, 360
Scarlatina, foot and mouth disease, a prophylactic to, 233
Scarlet fever and diphtheria, 549; measles, and diphtheria running together, 172
Schneiderian membrane, hypertrophy of, 60
Sciatic tablets, 153
Science, encourage home, 462
Screw worms, 202
Sexual functions in mental diseases of women, 442
Septicemia, 38
Shock, total blindness following, 466
Shrady, John, insanity, 521
Skin diseases, remedy for painful, 413
Slaughter houses, 530
Sleep, normal, 180; grafting, 36, 397
Smoke-balls, 438
Sodium, chloride of, in facial neuralgia, 154
Scurvy, 83; parasite nature of, 316
Society notes, 8, 34, 82, 169, 221, 244, 289, 384, 409, 429, 454, 482, 524, 541, 543
Solanum nigrum and atropia belladonna, 307
Solis-Cohen, Solomon, clinical lecture, 373
Somnal, 154
Somnambulism, relationship of, to epileptoid and epilepsia, 8
Southwestern Dispensary, 39
Spinal caries, Pott's, 66; concussion, 392, 469
Spivak, C. D., third plague of Egypt as a diuretic, 362
Splints, 597; plaster, 62
Sprains, 14
Sputum, examination of, for tubercle bacilli, 393
Starkey, H. A., "pointers" for general practitioners, 428
Stephens, T. G., delayed urine of tibia, 294; solanum nigrum and atropia—belladonna, 307
Stewart, J. S., lachrymal obstruction, 538
Stewart, W. B., sulpho-carbolate of zinc, 375
Stickler, J. W., foot and mouth disease, 236
Stomach, cancer of, 1; dilatation of, 311
Stricture of the urethra in females, 595
Strophanthus, 59
Strychnine as an antispasmodic, 337
Sugar test, 130
Sulfonal, 111, 261, 529; in diabetes, 487; in diabetes mellitus, 237
Sulphur, disinfected by, 155, 156
Summer diarrhœa in adults, 179; drinks, 61
Surgery, address in, by Lawson Tait, 137; intra-pelvic, 9, 167; of nervous centers, 442; practical, in relation to bacteria, 49; railway, 390; training, 137
Symphysis pubis, wiring of, 450; intrapelvic, 167
Synovitis, chronic, 339
Syphilis, 588; alterative for tertiary, 333; succinimide of mercury in, 417
Syphilitic fever, 315
Tablets, compressed, solubility of, 366
Tait, Lawson, address in surgery, 137
Talipes equinus, 108
Tangeman, C. W., phlyctenular keratitis, 161
Tarsal disease, 483
Teaching, sanitary, 340
Tendons, suture of, 417
Testicular liquids, action of, 41
Tetanus and vaccination, 250; recovery from, 152; traumatic, 391
Tetany, 434
Theobromine and diuretine, 297
Thorax, apparatus for measuring, 543
Thrasher, A. B., cough, 428; nasal reflexes, 524
Tibia and fibula, compound fracture of, 247; delayed union of, 294
Tissues, drugs for conservation, 315
Tobacco in hernia, 464
Toleration in medical ethics, 595
Tongue, dryness of, 14
Tonic, an efficient, 552
Tonsillitis, 553: acute, 546, 588
Torticollis, spasmodic, 59
Transfusion of blood in typhoid, 129
Treacy, W., mountain fever, 75
Trichloracetic acid as an astringent and caustic, 296
Tubercle bacillus, microbicide for, 362; examination of sputum for, 393
Tubercular joint disease, 534; peritonitis, 490, 559
Tuberculosis, 215, 362; boric acid for, 250; contagiosity of, 339; in rabbits, 8; laryngeal, 531; of ankle, 247; of epididymis, 248; pulmonary surgical treatment of, 15; question, present state of, 592; report on cure of, 590; transmission of, 154
Tuberculous cattle, 66
Tumors, differential diagnosis of, 365; fibroid of uterus, 475
Turkish baths for rheumatism, 242
Turner, S. S., Indian medicine men, 433
Typhoid and The Inquirer, 390; antiseptic treatment of, 588; complicated by rheumatism, 84; fever, 246, 251, 373, 438; cold baths in, 227; continuous bath for, 87; Erlich's test for, 464; formula for, 416; hip-joint disease in, 482; hydrotherapy in, 577; nervous sequelæ of, 342; salol in, 465; suppurations, 112; scarlet fevers, urine in, 179; transfusion of lamb's blood, 315
Ulcer, chronic, 588; of cornea, suppurations of, 308; hints for treatment, 596
Ulceration, 36
Ulcers and eruptions, indolent, 588
Urethral instruments, 244; stricture of, 16
Urethrotomy, internal, 16
Urine in typhoid and scarlet fevers, 179; phosphates in, 130; urea and sugar in, determination of, 470
Usego, 87
Uterine curette, 338; hemorrhage, 247
Uterus and vagina, rupture of, 106; antiflexion of, 545; death following catheterism of, 471; fibroid tumors of, 475; inversion of, 90; prolapse of, 545
Vaccination, antituberculous, in France, 554; and tetanus, 250; from goats, 43
Vaccine virus, goat as source of, 19
Vagina, absorbtion of truss by, 438; and uterus, rupture of, 186; application to, 11
Vaginal secretions, 296
Vaginismus, 552
Valerian, use of, 337
Vanderbilt clinic, prescriptions from, 153
Vanderveer, A., abdominal section, 3
Van Santvoord, R., access of bacteria to bladder, 453
Vein, iliac, obstruction of, 339
Vermiform appendix, inflammation of, 532
Vesical calculi, multiple, 90
Vesical calculus, removal per vaginam, 465
Vesical tenesmus, 464
Vinegar, adulterated, 551
Vision, hysterical, 454
Volvulus, 34
Vomiting in pregnancy, 104; of pregnancy, 151
Vulvar œdema, 533
Waln, J. R., case of diagnosis, 578
Ward, M. B., intra-pelvic inflammations, 214
Warts, saliva for, 529
Waugh, W. F., aristol, 258; pneumonia and abortion, 564
Welsh, D. E., catarrh of middle ear, 522
West Indies as a sanitarium, 209, 377, 382, 425, 506, 569, 594
Whooping-cough, 250, 525, 573; phenacetin in, 11
Willard, de F., cleft palate, 561
Wilson, C. M., puerperal mastitis, 563
Wolfe, S., coagulating process, 408; annual address, 356
Women doctors, 225
Wounds of lung, 465
Wright, T. L., drunkenness, 304
Wry neck, 532
Zenner, P., epilepsy, 452
Zinc, sulpho-carbolate, 363, 375

The Times and Register.

Vol. XXI, No. 1. NEW YORK AND PHILADELPHIA, JULY 5, 1890. Whole No. 617.

PAGE

CLINICAL LECTURE.

CANCER OF THE STOMACH. GASTRIC CATARRH WITH DILATATION, AND ACUTE NEPHRITIS. MITRAL DISEASE. By W. E. Hughes, M.D. - - - - - - - - - - 1

ORIGINAL ARTICLES.

THE MEDICO-LEGAL ASPECT OF ABDOMINAL SECTION. By A. Vanderveer, M.D., Albany, New York - - - - - - - - - 3

REPORT OF CASE OF CHOLECYSTOTOMY, WITH EXHIBITION OF SPECIMENS. By Rufus B. Hall, M.D. - - - - - - - - - 6

THE RELATIONSHIP OF SOMNAMBULISM TO EPILEPTOID AND EPILEPSIA.—A NOTE. By C. H. Hughes, M.D. - - - - - - - - 8

SOCIETY NOTES.

OHIO STATE MEDICAL SOCIETY - - - - - 8

Treatment of Compound Comminuted Fracture. *McCurdy* - - - - - - - - 9
Carcinomata Mammæ. *Allen* - - - - - 9
Puerperal Fever. *Colville* - - - - - - 9
The High Amputation of the Cervix *vs.* Total Extirpation of the Cervix. *Reamy* 9
The Care and Treatment of the Insane in this Country. *McCurdy* - - - - - 9
The Recent Epidemics of Diphtheria, Scarlet Fever, and La Grippe at the Sailors' and Soldiers' Orphans' Home at Xenia. *Galloway* - - - - - - - - 9
The More Frequent Use of Chloroform in Obstetrics. *Baldwin* - - - - - - - 9
The First Porro Operation Made in Ohio. *Baldwin* - - - - - - - - - - - - 9
Intra-pelvic Surgery for the Relief of Inflammatory Diseases. *Hall* - - - - - 9

PAGE

THE POLYCLINIC.

PHILADELPHIA HOSPITAL:
Hæmoptysis. *Walker* - - - - - - - - 10
Vaginal Application. *Marshall* - - - - 11

EDITORIALS.

DYSENTERY - - - - - - - - - - - - 12

ANNOTATIONS.

Preservation of Ovaries - - - - - - - - 13
Curious Use of Salol - - - - - - - - - 13
Cremation - - - - - - - - - - - - - 13

LETTERS TO THE EDITOR.

The Gin Cocktail. *Maxwell* - - - - - - 13

BOOK REVIEWS.

Philosophy in Homœopathy. *Mack* - - - 13
Wood's Medical and Surgical Monographs - 13
Diseases of the Eye. *Noyes* - - - - - - 13

PAMPHLETS - - - - - - - - - - - 14

THE MEDICAL DIGEST.

Inflammatory Leucocytosis. *Von Limbeck* - 11
Treatment of Acne Vulgaris. *Hillis* - - - 11
Phenacetine in Whooping-cough and Bronchitis. *N. Y. Med. Times* - - - - - - 11
Splenectomy. *Trombetta* - - - - - - - 14
Exalgine. *Atkinson* - - - - - - - - - 14
Sprains. *Riches* - - - - - - - - - - - 14
Cocaine Anæsthesia. *Hummer* - - - - - 14
Extreme Dryness of the Tongue. *Blackman* 14
Balsams as Irritants. *Stockman* - - - - - 14
Virulence of Microbes, *Roger* - - - - - 14
Trephining for General Paralysis. *Shaw and Cripps* - - - - - - - - - - - 15
Fracture of the Cranium. *Routier* - - - 15

PAGE

Surgical Treatment of Pulmonary Tuberculosis. *Tillmanns* - - - - - - - - - - 15
Chloroform. *McKendrick, Coats, and Newman* - - - - - - - - - - - - - - - 15
A Dietetic Problem. *Woodbury* - - - - - 15
Operation for Stricture of the Urethra. *Southam* - - - - - - - - - - - - - 16
The Need of Nourishment in Children of Different Ages. *Camum* - - - - - - - 16
RUSSIAN NOTES. *Spivak* - - - - - - - 17
Effect of Pilocarpine in Traumatic Deafness, and Its Collateral Effects. *Appelberg* - - - - - - - - - - - - - - 17
Three Seasons of Koumiss Cure in Shabo. *Scherr* - - - - - - - - - - - - - 18
Tuberculosis. *Richet* - - - - - - - - - 18
Sysol. *Gerlach* - - - - - - - - - - - 19
Vaccine Virus from the Goat. *Hervieux* - 19
Heliantaus Aunnus in Ague. *Maminoff* - 19
Virtues of Kola *vs.* Caffeine. *Duhamel* - - 19
Regimen in Contagious Diseases. *Grancher* 19
Hypertrophy of the Heart During the Period of Growth. *Revue de Ther.* - - - - 19
FRENCH NOTES. *Roussel* - - - - - - - 19
Mercurial Flannels. *La Méd. Mod.* - - - 19
Intra-venous Injections of Quinia in Malaria. *Bacelli* - - - - - - - - - - 19
The Treatment of a Red Nose. *Unna* - - 19
A Non-bitter Solution of Quinine. *Lutz* - 19
A Strange and Fatal Disease. *Chicago Tribune* - - - - - - - - - - - - - - 19

MEDICAL NEWS AND MISCELLANY, 20

ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - - 23

MEDICAL INDEX - - - - - - - - - 24

NOTES AND ITEMS - - - - - - iv, xiv

Clinical Lecture.

CANCER OF THE STOMACH. GASTRIC CATARRH WITH DILATATION, AND ACUTE NEPHRITIS. MITRAL DISEASE.[1]

By W. E. HUGHES, M.D.

I HAVE here the history of a gentleman, aged forty-seven years, and a mulatto, who has no family history bearing on his condition, while his own previous history is negative. Nine months ago he began to have pain in the stomach, more especially in the morning, which was more or less continuous. He vomited, and eating increased the pain, which was most marked on the left side, and would shoot through the abdomen. He has lost fifty pounds in the last two months. The prominent symptoms in the case at that time were those of gastritis, with pain in the stomach, which was rapidly succeeded by vomiting, and which was increased by taking food. He has lost flesh and has assumed a yellow color, due to anæmia and cachexia. It is difficult to say how much cachexia is present in a mulatto, on account of the color of his skin. The vomiting occurred at irregular intervals; the amount was not large, and was of a bilious character. In cases of cancer of the stomach, the vomiting occurs at regular intervals, and consists of undigested or partially digested food, and may be days after the food was taken. Here we did not have this characteristic vomiting. The pain, however, was more marked than the pain of ordinary gastritis, and, although the pain of gastritis is more marked after the ingestion of food, this case had more or less constant pain, accompanied with a loss of flesh and profound anæmia. On palpation, there seemed to be, in the median line, over the stomach, an increased resistance—no actual tumor—that was so pronounced that it led us to make the diagnosis of cancer of the stomach. The fact that the vomiting was not characteristic of cancer led us to think that it was within the walls of the stomach, in place of the inner surface of the pylorus. The pyloric end of the stomach is dilated, hence the vomiting. When cancer occurs in the walls, there is, as a rule, no dilatation.

The man died of asthenia, and, on post-mortem, we found an infiltrated, ulcerating growth on the side of the stomach; the pylorus remained patulous, and food could pass through. The cancerous growth was adherent to the right lobe of the liver, and had ulcerated into the structure of the liver, and, at one point, had almost perforated the peritoneal cavity, in which case it would have caused an abscess in place of general peritonitis. There seems to be nothing in the case to account for the increased resistance felt on palpation. The man had an unusual amount of pain for cancer, and had several attacks of gastralgia. A small abscess was found between the colon and the abdominal wall. The liver was drawn up under the ribs, which was rather unusual. You can see that this case demonstrates the fact that we may have cancer of the stomach which is adherent to the surrounding viscera, and not detect the presence of a tumor on examination. When felt, the tumor is most commonly found in the epigastric region, but you will meet with cases where a diagnosis must be made without the presence of a tumor being detected.

CHRONIC GASTRIC CATARRH WITH DILATATION.

I wish to bring before you a patient who has the symptoms of gastric cancer, but I do not think he has this disease. We have had him under observation sufficiently long to make a diagnosis of the case.

[1] Delivered at Philadelphia Hospital, May 10, 1890. Reported by W. B. Stewart, M.D.

This man claims to be ninety-one years of age; family history is negative; had good health until three years ago; has been a moderate drinker, and has no specific history. Three years ago he was subject to attacks of epigastric pain, and began to vomit. His diet was regulated and his trouble ceased, but soon began again. At times he would go for several days without vomiting. He was admitted to the hospital on September 24, 1889, and his condition now, is, practically, what it was at first. His prominent symptoms are referred to his stomach; appetite is poor, but, from the amount of material he vomits, he must force himself to eat. After he eats, a distinct pain occurs in his epigastrium. He seldom vomits immediately after eating, but does so later. The vomited matter is partially digested food that has been taken several days previously. The attacks of vomiting are severe, and he gets up some reddish-brown matter after he has made several attempts. His general condition has not failed, while his complexion remains fairly good. His tongue is fissured, and coated, like it is in cases of chronic gastritis. The abdomen, on percussion, is more tympanitic than it should be,—all over the epigastric region and below, the percussion note is the same. The point to determine is, if this tympany belongs to the stomach. This is often difficult to determine, for the colon often becomes so distended with wind that you cannot tell where tympany of the colon begins, nor where it ends. If the tympanitic note found thus low down is that of the stomach, it is a case of dilatation, and all the symptoms point to this condition. A distinct succussion splash can be heard, and it is now four hours since he has taken food or drink. Shaking can only cause a sound when the stomach is dilated with air. On looking at this man's abdomen closely, I fancied I could see a distinct vermicular action of the stomach. We have in this case, in addition to the chronic gastritis, vomiting that is not influenced by food; the presence of increased tympany over the stomach; the presence of splashing sounds,—all of which point distinctly to dilation of the stomach.

I will go further to demonstrate the diagnosis. We can give substances to be taken into the stomach to cause gas which will dilate it to its full capacity, and, as a rule, we find this a positive diagnostic sign. I have here prepared two Seidlitz powders. I will let him drink the alkaline portion first, and then the acid. Percussion now shows that there is marked tympany which has increased over the area of the stomach. The fact also that he can contain the amount of gas generated from two Seidlitz powders, without discomfort, is in itself an indication of dilatation of the stomach. As I stated, gastric carcinoma is a great cause of dilatation, but in six months' time there is no cachexia or anæmia, nor any tumor, so that I think we can say that there is no cancer present. Fibrous degeneration of the walls of the stomach with infiltration will give rise to dilatation, if it obstructs the pylorus; but I do not think this is the case, for the vomiting is not marked enough, and the bowels are not sufficiently constipated. In addition to these causes, dilatation of the stomach is caused by an atonic condition of its walls from a long continued gastritis and the ingestion of all forms of food. There is evidently a marked catarrh of the mucous membrane of this man's stomach with congestion.

Now, a few words as to treatment. In the first place, he has in his stomach a large amount of iritating mucus, and the first thing is to get rid of this. Nature attempts this by vomiting, but the walls of the stomach are too weak to do this satisfactorily. We can remove this mucus by introducing a gum-tube through the œsophagus into the stomach; pour warm water through it into the stomach until it is full; depress the end of the tube, and thus empty the stomach by syphon-action. Repeat this until the return-flow is perfectly free from mucus. Here there can be no relief except from such a treatment. When the tube is introduced, depress it well against the posterior wall of the pharynx, and ask the patient to swallow as you introduce it into the stomach. You see that in this case the matter drawn from the stomach consists of a stringy mucus that is smeared over the mucous membrane, and acts as a mechanical hindrance to the action and flow of the gastric juice. If you have a case where there is great irritability, get the confidence of the patient, and persist, and in time it will be overcome. In place of pure water you may use some antiseptic solution, such as salicylic acid, thymol, creoline, creasote; or some alkaline solution that will stimulate the stomach more than antiseptics. If there is marked dilatation, this washing process should be done every day, but in this case it is done every four days, and as the patient improves the time will be lengthened. Good results will not be shown for the first week or more. After one of these washings you will find that the digestion will be improved; the bowels that have heretofore been constipated become regular. In addition to this we will treat the gastritis by the mild astringents, such as bismuth, or nitrate of silver, or something of that kind. Probably the use of mineral acids is good. In addition to the treatment of the mucous membrane, we must treat the muscular coat by the employment of such agents that will restore the muscular tone. The most valuable agent at our disposal is strychnine. A faradic current of electricity has been used, by applying it to the abdominal walls with the hope that it would affect the stomach. Some advise the passage of an electrode into the stomach, but I have had no experience in this treatment. Massage over the stomach is a valuable agent. Pay strict attention to the general health and diet, and put the patient under the most favorable hygienic surroundings. This man reports himself as very much improved under this treatment. After all, when we come to sum up all forms of treatment for dilatation of the stomach, the washing process is the best.

ACUTE NEPHRITIS—MITRAL DISEASE.

Our next patient is a man twenty-five years of age, who has a good family history. Seven weeks ago he had his leg injured by a sledge-hammer. Following this, he was seized with dyspnœa, so that he could not lie down at night. The dyspnœa has only been present for a few days. His feet began to swell. In depraved conditions of the blood œdema begins in the dependent parts of the body, extends upward and finally invades the whole body; such a condition may occur in profound anæmias, or in phthisis. Œdema may be due to an obstruction in the return flow of blood through the veins; to heart or kidney disease. This man's urine was examined and it was found to contain albumen, numerous granular casts, and is evidently the urine of a diseased kidney. Until two weeks before this attack, he says, he was perfectly well, except that he would have to get up once or twice during the night to pass his water. I find a moderate amount of fluid in both pleural cavities. There is no inflammatory condition of the pleura. Looking at this man, we can see a distinct pulsation about the root of his neck, and

notice the artery beating on the left side, which should direct our attention to the aortic valve of the heart. On examination, I find no lesion of the aortic valve, but there is a stenosis and deficiency of the mitral orifice. Here then is a lesion that must have existed for years without this man knowing it. It is probably due to the result of one of the exanthemata of his childhood, for he has no rheumatic history. This cardiac weakness predisposes him to accidents. There has been set up an acute nephritis in this case. We get the symptoms of cardiac disease due to a disturbance of the equilibrium of the circulation by the acute nephritis.

Treatment should not be directed so much to the heart as to the kidneys, for they are the organs that disturb the circulation, and I think that by treating them, the dyspnœa will disappear, and he will be restored to his usual health and may live for years. Heart trouble may be brought into prominence by some small acute trouble, and we cannot hope for any good results, until it is relieved. In any case of this kind, do not treat the heart trouble, but anything that will disturb the heart must receive attention. A heart of this kind is not incompatible with a long and useful life.

Original Articles.

THE MEDICO-LEGAL ASPECT OF ABDOMINAL SECTION.

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A YEAR ago I had the pleasure of presenting to the Section on Obstetrics and Diseases of Women and Children, American Medical Association, a paper on Concealed Pregnancy, and its Relation to Abdominal Surgery. In the preparation of that paper considerable time was devoted to the compiling of a table of cases wherein abdominal section revealed an undiagnosticated pregnancy. This table is measurably complete, and journals, by extracts and summaries, have given a wide circulation to the paper and the table. While that table was in preparation, from letters and other sources, my attention was called to the medico-legal aspect of abdominal surgery, in its general relations, and to the probable testimony of expert witnesses in the cases where an action for malpractice is brought. For this and the other reason that two American surgeons have already been compelled to plead to an indictment of manslaughter, it seems to me profitable to join this paper rather as a supplement to the one of last year, by considering certain medico-legal points of abdominal surgery. A letter from a very eminent American surgeon in relation to one of these cases says, "For my part I do not see how the error occurred." And I have numerous other letters, stating that we ought never to be unable to diagnosticate pregnancy, especially after the fourth month. Testimony such as this would have been very dangerous to such men as Professors Freund, Karstrom, Wm. Varien, Czerny, Byford, and others equally as competent, had they been placed on trial for malpractice.

We all may, at any moment, be placed upon our defense by clamor of the public press, which seldom, very seldom, gets down on the right side of any medical question. Dr. Mary A. Dixon-Jones is a conspicuous example of newspaper persecution, which, happily, she overwhelmed. Designing attorneys, with prospects of good fees, may urge unwilling people into litigation, or, avaricious relatives may, failing in levying blackmail, institute an action. Motives no different than these give rise to nine-tenths of all action for malpractice.

In case of the death of the patient the surgeon may be proceeded against, criminally, by an indictment for manslaughter, and civilly, an action for damages. One action criminal, is no bar to another civil, for damages, nor can the result in one prejudice the result in the other. If the surgeon be proceeded against by indictment in my State, New York, the indictment is drawn under the provisions of the Penal Code, Section 195, viz.: "A person who, by any action of negligence or misconduct in a business or employment in which he is engaged, or by any unlawful negligence, or reckless act, occasions the death of a human being, is guilty of manslaughter in the second degree."

In States where no statutory provisions have been enacted, the indictment is drawn at common law. At common law, "If a physician or surgeon, or any person assumed to be such, by his gross negligence, or gross ignorance, or by his rashless or want of proper caution, causes the death of his patient, it is manslaughter." (Field's Medico Legal Guide).

As the statutory provision is drawn from the common law, and depends for its interpretation on the interpretation of the common law, we can find no clearer demonstration than that of Lord Ellenborough (Rex *vs.* Williamson, 3 C. & P. 635), in his charge to the jury. He says: "To substantiate the charge of manslaughter the defendant must have been guilty of criminal misconduct, arising either from the grossest ignorance or the most criminal in intention. One or the other of these is necessary to make him guilty of that criminal negligence and misconduct, which was essential to make out a case of manslaughter. It does not appear that there is any want of attention on his part, and from the evidence of the witnesses on his behalf, he possessed some degree of skill." (The defendant in this case had forcibly torn away a prolapsed uterus, following delivery.) "I think the defendant could not possibly commit such mistakes in the exercise of his unclouded faculties, and I own that it appears to me that if you find the prisoner guilty of manslaughter, it will tend to encompass a most important and anxious profession with such dangers as will deter reflecting men from entering into it." (The verdict not guilty was entered in this case.) As far as I am able to learn, charges to juries have been uniformly that gross neglect, or gross ignorance, or both, must be shown on the part of the prosecution beyond a reasonable doubt, before a conviction can be had. Then, as has already been shown, the prosecution must stand or fall upon the proof of gross negligence, or gross ignorance, one, or both, or, in other words, criminal misconduct. Gross ignorance and gross negligence are both questions of fact, and must be passed upon by a jury. In consequence, the standard of care and skill must form that, and other facts and conditions, but must be a variable one, as they are not questions of fact purely. It is the duty of the court to charge the jury with reference to degrees of care and skill by definition and illustration. It has been maintained that it is impossible to make precise distinctions between negligence and gross negligence. Mr. Justice Bradley (U. S. S. C. Reports) says: "In deciding the question of negligence where there is any conflicting testimony, and ordinarily where there is not, all the facts and circumstances should be submitted to the jury, with instructions that in deciding whether there was ordinary care or gross negligence, they are to con-

sider the position of the party, his business, his duties and responsibilities, and that the same act which, under some circumstances, would not show any degree of negligence, might, under others, show want of ordinary care; and, under still other circumstances, might show gross negligence, and this should be settled by the jury as a question of fact, and not by the court as a question of law."

Gross ignorance is open to the same objection that gross negligence is, viz.: of being relative. That which, under some circumstances, would be ordinary skill, in other circumstances would be ignorance; and, in still other circumstances, would be gross ignorance. The very favorable rule of law has been laid down that "The least amount of skill, therefore, with which a fair proportion of the practitioners of a given locality are endowed, is taken as a criterion by which to judge the physician's ability or skill" (Bouvier's Inst., 1,004–5). "The surgeon must adopt the means and apply the skill well settled by the highest lights of his profession. He must possess and practically exercise that degree and amount of skill, knowledge and science which the leading authorities have pronounced as the result of their researches and experience up to the time, or within a reasonable time before the issue or question to be determined is made." (Elwell on Malp. 55).

Surgeons residing in the large cities, with hospitals and other superior advantages, will be required to possess greater skill than those living in localities remote from such advantages; and there seems to be a concensus of judicial opinion that, unless specificially contracted for, the surgeon is only bound to exercise the ordinary care and skill.

By way of illustration, let me present a single case, the kind of which is not likely to occur again. Surgeon A. is called to a case of abdominal tumor. By examination he finds that the patient is thirty-six years old, married twenty years, no children. The tumor had been growing eight months; she has vomited and been constipated at intervals; has felt no quickening, and does not believe herself pregnant. Vaginal examination reveals a cervix high up, somewhat enlarged, os uteri not patulous or particularly softened, unable to make out body of uterus. Upon abdominal examination a distinctly fluctuating tumor is made out, located centrally and, evidently, from the physical signs, contains fluid within a cyst. The diagnosis of ovarian cyst is made, and an operation proceeded with. Upon opening the abdomen the tumor appears. The walls are thin and not of unusual appearance; the trocar is introduced, and six quarts of fluid withdrawn, after which the operator finds he has tapped a pregnant uterus. He completes the operation by Caeserian section, and in five days the woman dies of septicæmia. Surgeon A. is indicted for manslaughter, the indictment averring that he, through gross ignorance, by gross negligence, by rashness or want of proper caution, caused the death of his patient. The indictment is drawn under the provisions of the common law of the State in which he resides. Surgeon A. pleads not guilty, and the trial is proceeded with. The prosecution prove the facts as have been heretofore stated, and call expert witnesses to prove gross ignorance, gross negligence, want of caution or rashness. The only way they can demonstrate the facts so essential to conviction is by expert testimony. The chief question involved and presented with earnestness, Was there sufficient symptoms of pregnancy present to arouse the suspicious of pregnancy, and did the defendant exercise sufficient care and skill in making his diagnosis? The opinion of the witnesses for the prosecution is that sufficient symptoms, amenorrhœa, vomiting, and the presence of a tumor was sufficient evidence of pregnancy to require a most searching examination before pregnancy could be excluded, and that the defendant was negligent and unskilful in his examination. It is shown that he did not examine the breasts for the changes that occur in pregnancy; that he did not inspect the vagina for the change in color (wine-leaf); he did not seek to elicit ballottement; and he did not lay sufficient stress upon these and other symptoms as to the probabilities of pregnancy; and that a proper explanation of the possibilities of her condition was not made to the patient and her friends previous to the operation; that no suggestion was made by the operator as to the necessity of exploratory incision, if at all in doubt as to diagnosis.

The defendant showed by competent witnesses that he had exercised the average care and skill in examining the patient; that he had not acted with undue haste or rashness; that he was honest in his belief that the case was one of ovarian cyst. He admitted having committed an error of judgment, and which he believed was liable to occur in the hands of surgeons of good reputation under existing circumstances. The case was ably tried, and the jury brought in a verdict of guilty. It was carried to the next court, and there the court, on argument, overruled the verdict, presenting some very strong points on the subject; part of the line of argument being that the surgeon was shown to have been a man of great experience, of large practice; a man who stood extremely well with his professional brethren, who had for years maintained a high reputation—very far above the average. That the verdict rendered by the jury was not for the public good, and that the conviction ought not to stand. No farther attempt was made by the prosecution.

Another case which illustrates ninety-nine per cent. of the cases of concealed pregnancy, where an operation has been done, is surely not so easy of diagnosis, being that of Surgeon B., having a patient aged fifty, married many years, always sterile. Fibroid had existed for twenty years or more—a pregnancy not suspected. A hysterectomy was done for the removal of the fibroid, and when the uterus was opened, to his own and everybody's surprise, the surgeon brought out a buxom fœtus, which seemed also very much surprised, for it immediately began to cry. It proved to be at least eight months old and all right. There was also a very large fibroid, which was very vascular. Unfortunately, the patient died soon after. Surgeon B. was tried for manslaughter and acquitted.

Perhaps one of the most unpleasant cases of malignant persecution is the case of Surgeon C., where, after careful explanation to the patient of the physiological change that would take place, and her condition after the operation, it was finally decided to remove the uterine appendages. The operation was done, the patient recovered, and some months afterward a suit was brought against Surgeon C. for willful mutilation. It was shown that all proper explanation had been made to the patient and to her friends, that the operation had been skilfully done, and the patient made a good and speedy recovery, and yet the jury disagreed. A second trial took place some time after, and the surgeon was acquitted, yet he had been to great expense in his defense, and had lost much valuable time; but the laws of his State afforded him no redress whatever. I might cite other cases, but can say earnestly, and for the comfort of the

honest and well-meaning surgeon, that I have not been able to find a case where conviction has occurred and the higher courts have sustained the verdict. A careful study of the rulings of the courts and charges made by judges to the juries in such cases, brings up prominently the fact that the law recognizes no one school in medicine. The doctor must practice the necessary skill in the diagnosis of his cases, and he must exercise the average degree of ability in the doing of the operation, and that he is not supposed to do more than is required of the person possessing an average amount of skill. Another point that seems to have been presented with considerable force by some of the rulings, is negligence on the part of the plaintiffs. In several operations it was shown that the plaintiff wilfully withheld from the surgeon certain symptoms, and that she purposely misled him by making statements of conditions that really did not exist. This would have been the case had Drs. Prince and Varian's cases been presented for trial. Beyond a doubt, ont hese points alone, they would have been ruled out of court.

Referring once more to the case of Dr. Jones, which has been so recently before the profession, she says, in answer to a letter of mine, that "she is glad to know that the subject of the medico-legal aspect of abdominal section is to come up for discussion at this meeting," and states as follows: "There is a necessity to look into these subjects. Under the existing laws of the State of New York a surgeon has no protection. If, in his efforts to relieve the sick and suffering, he decides to do abdominal section, or indeed to perform any surgical operation, and if, notwithstanding his best directed efforts, the patient should die, he is liable to, or may have, a suit for malpractice, or an indictment for manslaughter in the second degree. If the patient lives and does well, there may still be a suit for malpractice. The surgeon may spend his strength, his time, and give his best efforts to relieve the suffering poor, yet, under the law, and by the law, these same persons, for whom he has labored, may turn and rend him, and use every effort for his destruction, personal and professional. Malice at any time may so construe the law that at any unexpected moment the surgeon or physician may find himself in the most serious and unpleasant difficulties. Thus, it is simply dangerous to practice medicine and surgery in the State of New York. A distinguished lawyer said to me the other day, that however well prepared he might be, yet he would not, as the law at present stands, *dare* to practice medicine, and he thought he had about as much courage as most people.

"Section 200 of the Penal Code says:

'LIABILITY OF PHYSICIANS.

"'A physician or surgeon who, being in a state of intoxication, administers a poisonous drug or does any other act, as a physician or surgeon, to another person, which produces the death of the latter, is guilty of manslaughter in the second degree.'

"But according to Judge Barlett's ruling 'Physicians are also liable, under Section 193 of the Penal Code, in connection with the preceding provisions.' Subdivision 3 of Section 193 says: 'By any act of procurement or of culpable negligence.' This comprehends a great deal, and can be made to mean anything. A physician or surgeon, though he may have the best preparation, yet by any act of procurement as administration of medicine or surgical operation, if the patient dies, he may be found guilty of culpable negligence. There will always be found physicians who would have used different procedures, or advised another course as preferable.

"If a surgeon, for the welfare of a patient, deems it best for him or her to perform abdominal section, and death ensues, malice can, under Subdivision 3 of Section 193, have him indicted for manslaughter in the second degree.

"If a surgeon neglects to perform abdominal section, when, in the estimation of another, it should have been performed, and the patient dies in consequence of the pelvic conditions, that surgeon, under Subdivision 3 of Section 193 of Penal Code, can be found guilty of culpable neglect, and indicted for manslaughter in the second degree.

"Judge Bartlett says further: 'If a person assumes a certain amount of skill, and does not develop that amount of skill in his act, is guilty of culpable negligence.' How largely malice or blackmail may misjudge this skill and use the law for direct persecution, or, as the *New York Medical Journal* puts it, for "roasting physicians.'"

Notwithstanding the strong points she presents, I am of the opinion that the courts have ruled in justice to all concerned in these cases. It is necessary that the public have proper protection; that while we must advance in our profession only by experience and accumulated skill in the doing of untried operations, yet in their performance great caution and the careful study of cases becomes a necessity. It will be observed that while it has been a great hardship and required much resolution for the surgeons who have been attacked, to defend themselves, yet they have, in the end, triumphed.

What I would like to see as the result of this discussion is the betterment of our laws in this, that the surgeons may have better protection in the recovery for loss of time, for expenses they have been put to when it is proven that the case was urged by some disreputable lawyer, or by those personally malignant within or without the profession.

My conclusions then would be:

1. That we should exercise the greatest care in the examination of our cases of doubtful diagnosis.

2. That when in doubt we should lay great stress upon the necessity of an exploratory incision, and make a very proper explanation of what this means to the patient and friends.

3. That in the cases thus far brought to trial we have reason to believe that the judges, in their rulings, have treated our profession with great fairness, the strong points being that the public good is not subserved by undue and willful prosecution of the surgeon who has shown the proper amount of intelligence in his profession.

4. That we should seek still to have the law so made in our favor as to eliminate the cases of willful prosecution.

5. That in the careful study of these cases we have presented the lamentable condition of expert testimony. Men absolutely ignorant upon the subject, men who have never done an operation of any merit in surgery, being allowed to come upon the witness-stand and testify as experts.

ONE new case of cholera and one additional death therefrom are reported at Puebla de Rugat. There has also been one more death at Gaudia.

THERE is plenty of the milk of human kindness in Councils, but it doesn't always size up to the 12 per cent. standard when action on an inspection bill is required.

REPORT OF CASE OF CHOLECYSTOTOMY, WITH EXHIBITION OF SPECIMENS.[1]

By RUFUS B. HALL, M.D.,

Surgeon to the Cincinnati Free Hospital for Women; Professor of Gynecology at the Cincinnati Polyclinic; Clinical Lecturer on Gynecology at Miami Medical College; Fellow of the British Gynecological Society; Fellow of the American Association of Obstetricians and Gynecologists, and of the American Medical Association, etc.

MY purpose in reporting the following case is to illustrate how little is accomplished by nature's effort in some cases of obstruction in the common bile duct, and at the same time to emphasize the necessity of operative interference, as soon as it is evident that nature is not competent to overcome the obstruction. Mrs B., aged thirty-nine years, mother of seven children, the youngest six years of age. She is a slender woman, never weighing more than one hundred and fifteen pounds, and has always enjoyed fair health previous to the present illness.

February 6, 1890, she was seized with an attack of pain, and sent for the family physician—Dr. E. S. Stevens, of Cincinnati. He found her suffering with hepatic colic of a severe type. Hypodermic injections of morphine were given for the relief of pain. She vomited a number of times, and for three days the ejected fluid contained bile. The morphine was required for four or five days, when the pain subsided. About that time it was observed that she had slight jaundice, which remained about one week. It was now observed that there was an enlargement in the region of the gall-bladder; this enlargement disappeared in about two weeks. She was confined to her bed ten or twelve days. She had not regained her strength sufficiently to enable her to oversee her domestic duties when, on March 9, she had a recurrence of the pain, necessitating the use of morphine. The stomach became very irritable, and she vomited at short intervals; the fluid contained bile for four days. She was very much constipated during the entire illness.

March 19 it was again noticed that she was slightly jaundiced, which grew rapidly worse, until, at the end of a week, she was the color of a rusty, or dried-up, lemon. It was also noticed that there was again an enlargement in the region of the gall-bladder, the size of a closed hand. The stomach became exceedingly irritable; she vomited as often as every fifteen minutes, for hours together, and during her entire illness she rarely went four hours without vomiting. But after the jaundice became manifest in the second attack of pain, there was no *indication of bile*, either in the fluid vomited or the stools. Thus it was reasonable to infer that the obstruction was in the common bile duct, and, from the sudden onset of the symptoms, that the obstruction was due to an impacted gall-stone. The pain was not so severe now as in the commencement of the attack; a half grain of morphine, two or three times in twenty-four hours, made her condition bearable. Although she suffered great pain, she said "her greatest suffering was from the nausea and vomiting." Notwithstanding she had regular rectal nutrient enemeta, she suffered greatly from hunger, and said "that she could appreciate the feeling of shipwrecked sailors who were driven to that desperation from hunger that they killed and ate their companions."

About April 1 she was in a condition that an operation appeared to be the only means that could afford relief, and it was so stated to the family; but their consent to an operative interference could not be obtained. The following day her condition appeared to be better in every way. She remained better for a few days; yet she suffered so much from nausea and vomiting that she required morphine, which relieved the distressing symptoms to some extent. All the usual remedies for nausea and vomiting, including cocaine, phenacetine, and hydrocyanic acid, were tried, with only temporary relief.

April 11 the emaciation was extreme, her estimated weight was ninety pounds; the suffering from the pain and sick stomach was great, and it was evident that she would not live long unless she could be relieved. At that time her husband consented to a consultation with reference to an operation. I saw the case with Dr. Stevens, the 12th. She was in a dazed condition—listless, and did not appear to notice anything or any one about her; yet, she answered questions rationally when spoken to. Pulse, 100; temperature, 97½°; cholæmia, extreme. At that time the liver was enlarged; the lower border was easily defined about four inches below the ribs. It could not be determined, at the examination, that the gall-bladder was enlarged. She vomited a little glary mucus every few minutes. The patient appeared to be in a dying condition. She was so feeble that any operative interference seemed to promise nothing but a fatal termination; yet this promised a slight hope, and there appeared to be no hope if the case was left to nature. This statement was made to the husband and friends, and they quickly decided to have the operation made.

A patient in this condition has more than the ordinary dangers encountered in other abdominal operations. The deteriorated condition of the blood which had existed so long, and her extremely feeble and emaciated condition, made it very doubtful if she would be able to bear the operation and subsequent shock. Even if she passed through these, the great danger of secondary hemorrhage was yet to be encountered—which is one of the most dreaded and frequent complications following gall-bladder operations upon cholæmic subjects.

Greig Smith[1] says: "Cholæmia, not only as weakening and depressing the patient, but also predisposing to bleeding, is an unfavorable element. In only seven of Musser's and Keen's series of thirty-five cases of cholecystotomy was jaundice present, and five of these cases died—half of the whole mortality. That the jaundice had much to do with this excessive death-rate there can be no dispute. This suggests early operation, before the patient's condition is lowered by cholæmia."

In seventy-three cases quoted by Smith, where the gall-bladder was sutured to the abdominal wound, eleven died—five from hemorrhage and collapse. He says "collapse with hemorrhage would seem to be the most usual cause of death; and this cause is the most potent in cholæmic individuals." In this case it proved to be an exceedingly grave complication.

The operation was made April 13, 1890, at 10 A. M. An incision, two and one-half inches long, was made two inches to the right of the median line, over a prominence, which could be distinctly felt when the patient was under the anæsthetic. This prominence was supposed to be the gall-bladder. Upon opening the peritoneal cavity firm adhesions were encountered with omentum and intestine, and the enlargement that was supposed to be the gall-bladder proved

[1] Read by title, Ohio State Medical Society, June 4, 5, and 6, 1890.

[1] Third edition, pp. 600–601.

to be the edge of the liver. The gall-bladder was enlarged, but the lower end of the bladder was just at the upper end of the incision, which necessitated extending the incision upwards about two and one-half inches. After separating several coils of intestines, I could detect several stones in the enlarged gall-bladder, which was aspirated and six ounces of gall removed, which I expected to present to you, but it could not be preserved or kept in a condition to bring here. I then incised the gall-bladder and removed four gall-stones, which were lying loose in the bladder. In searching for the cause of the obstruction it was easily found, and proved to be a stone impacted in the common duct. With the fingers upon the duct, over the stone, it was removed without much difficulty. The stones here presented are those removed; the sharp-pointed one is the one that was impacted in the duct. After passing a probe into the common duct and detecting no more stones, the gall-bladder was stitched to the upper end of the abdominal incision with interrupted sutures, and the remaining two inches of the abdominal wound closed in the ordinary way. As there had been quite extensive and firm adhesions to separate, I placed a glass drainage-tube in the abdominal cavity. A rubber drainage-tube was placed in the gall-bladder. There was very free bleeding from the edges of the abdominal wound and wound in the gall-bladder during the operation.

After the completion of the operation we placed the patient in bed, with no hope that she would ever rally. She regained consciousness very slowly. At 4 P. M., five hours after the operation, her pulse was 124; temperature, 99°; patient semi-conscious; dressing stained with blood and half ounce of blood removed from the abdominal drainage-tube; there was oozing of blood between all of the stitches. I then gave directions to the nurse that the drainage-tube should be pumped out every half-hour, and the wound carefully watched in reference to the bleeding, that we might make an intelligent estimate of how much blood was lost in a given time. Each inspection revealed increasing hemorrhage; so, by the following day at 11 A. M. she was losing blood at the rate of two ounces every three hours. The loss of this amount of blood from one so feeble gave us no little anxiety, and the fact that it was increasing in quantity from hour to hour, instead of decreasing—as we naturally hoped—made the prognosis more grave still.

At 5.15 P. M. Monday, thirty hours after the completion of the first operation, the patient was bleeding as freely as at any time since the hemorrhage commenced. She was semi-conscious; pulse, 124, and very feeble; temperature, 98°. The blood came from between the stitches at the lower end of the wound below the gall-bladder, and from the abdominal drainage-tube. I could not tell whether the bleeding came from a point within the abdominal cavity, or from the edges of the abdominal incision. It was plainly evident that the patient could not long survive if the bleeding could not be controlled. After a short conference with her husband I gained his consent to again open the abdominal cavity to search for the bleeding point. I was very anxious not to disturb the stitches which attached the gall bladder to the abdominal wall, as there did not appear to be much bleeding from that part of the wound (only a little oozing between the stitches).

With the assistance of Dr. Stevens and Mr. Rice, a student in medicine, the patient was given an anæsthetic upon the bed, and the stitches removed from that portion of the abdominal wound below the gall-bladder. There was free bleeding from every portion of the edges of the wound. Around the glass drainage-tube in the cavity was considerable blood-clot—perhaps two ounces. After sponging this out, I soon satisfied myself that the bleeding all came from the wound in the abdominal wall, and a part of it entered the cavity outside of the tube and was removed with the pump through it. After this fact was determined I at once removed the glass drainage-tube and closed the cavity by uniting the peritoneum only with a continuous suture of catgut. When this was accomplished I proceeded to close the rest of the wound in the following manner:

With a Hagerdorne needle upon each end of a thread I passed one needle from within outward, including the whole thickness of the abdominal wall except the peritoneum, including a large bite of tissue, the needle coming out about one inch from the edge of the incision. The needle on the remaining end was passed in like manner on the opposite side; all the stitches were placed in the same manner, and about one-fourth of an inch apart; they were tied very tightly, thus making firm pressure upon the edges of the abdominal incision. This practically controlled the hemorrhage, yet the wound continued to bleed between all of the stitches for eight days longer, but not more than two or three drachms a a day.

The patient went through the second operation fully as well as the first. For fully a week her temperature was subnormal one or more times during each twenty-four hours. The highest point reached was 99.4° except once, when it reached 100°. There was a free and constant flow of bile from the drainage-tube in the gall-bladder for eight or ten days, when it became intermittent. The tube was removed on the sixteenth day, and on the twenty-first day the sinus was closed. The cholæmia rapidly disappeared; a marked improvement could be observed on the third day after the operation. She complained of nausea but little after the third day, and vomited but twice after the operation was made. On the third day she retained liquid food, and after the fifth day she had a ravenous appetite.

The stools showed the presence of the bile from the first movement, which was on the fourth day.

On the twenty-eighth day she was able to go down stairs, and is now rapidly regaining her strength.

To summarize: The following special points can be emphasized in this case:

1. The complete success of surgical interference in the almost hopeless condition of the patient.

2. The perfect success of the use of compression by means of very deep and firmly-tied sutures.

And here I may remark that had this failed to check the bleeding I would have cauterized the bleeding surface down to the peritoneum, dressing it as an open wound.

154 West Eighth Street.

The Guild of the Iron Cross, of St. Clement's church, has been, for several weeks past, taking parties of working boys into the country on Saturday afternoons. They are provided with food, suitable games, and, what is regarded as more important, a half-holiday in the fresh air. Tickets can be had on Tuesday and Friday evenings at the Iron Cross office, 2021 Cherry street, from 7 to 8 o'clock. Help is needed to carry on this work, and any contributions sent to the Rev. Father Field will be thankfully received.

THE RELATIONSHIP OF SOMNAMBULISM TO EPILEPTOID AND EPILEPSIA. —A NOTE.

By C. H. HUGHES, M.D.,

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THE TIMES AND REGISTER, referring to an article of mine on the Alternative Psychoses of Epilepsia, notes some of the somnambuliform automatisms there recorded as occurring in undoubted epileptics as supplemental and substitutive of the ordinary epileptic seizures, and makes the suggestive and clinically warranted comment: "If this be epilepsy, the possibility of the same affection underlying cases supposed to be simply somnambulism should be considered."

Undoubtedly! Somnambulism is a morbid state of the brain, a nocturnal cerebral vascular psychosis closely allied to epileptoid. I think it has been allied to epilepsia by other observers than myself. It involves the psycho-motor area of the brain as epilepsia does, and has its exact counterpart in many of the automatic alternative states of epileptic disease. I have been for many years so thoroughly satisfied of this fact that I have treated and broken up the habit in a number of instances, in a manner similar to the management of a case of epilepsia mitior, and have invariably, of late years especially, advised treatment of all somnambulists.

Clinical records show somnambulism, hysteria, dipsomania, and epileptoid states, as well as the pronounced insanities, as alternative conditions in neuropathic family histories; the children of somnambulists, hysterics, and inebriates are often found to be epileptic as well as insane, and *vice versa;* though we more often find the descendants of somnambulists and mild hysterics to have the lighter nervous troubles, as chorea, migraine or neuralgia.

I have personally known many instances where somnambulism has taken the place of hysteria and epilepsia in neurotic families, and several where a somnambulic father or mother has borne an epileptic child; and several instances where I suspected epileptics to have been the product of a coitus in which father or mother was in the trance state of inebriety, or the automatic mental state that sometimes follows or supplements an epileptic fit; but not until during the past week have I seen an epilepsia in a child traceable to unconscious copulation on the part of the father while in the nocturnal automatism of the somnambulistic state. This man was so profoundly unconscious in his somnambulism that, on one occasion, he broke a window with his fist, to jump out, without being awakened till his wife dashed water on him and did some other things to arouse him.

The father seemed to think that, because his wife's conception dated from one of his unconscious somnambulistic periods, that this was the all-sufficient explanation of his child's epilepsia. The child's mother died of phthisis, and never had hysteria, epilepsia, or other marked neurotic trouble.

You have seen proper, in your issue of May 24, to refer to the case of a boy reported elsewhere by me, who "completely undressed himself, crying as if in fright, and then replaced his clothing; no convulsive act following or preceding. He would struggle till the fit was over if interfered with." And to another, who "arose one night at the time of the fit, dressed himself, walked to his barn and pasture, looked several times at his watch, returned, undressed methodically, and went to bed; from which he arose next morning, unconscious of the occurrence."

This note is a brief exposé of my views on this clinically important subject, a subject always as interesting to the neurologist as syphilis in its protean forms is to all physicians. It is another view of the many-sided neuropathic diathesis, or instable nervous constitution. A volume might be written upon the subject as entertaining, in fact, as an entrancing novel.

Jules Verne's fictions "Under the Sea" have lately been almost verified in the Coubert torpedo-boat of French science, the phonograph, graphophone, etc.; but the marvels of the nervous system revealed in the psychopathies and neuropathies transcend even the flight of fancy.

As I write, in verification, I have just finished examining a bright little boy of five years, who has lately been stricken with a peculiar form of aphasia, without fever, rheumatism or paralysis, who can only recall the wanted words by mental circumlocution and rubbing the hand forcibly for some seconds against a hard substance, or the opposite hand, or the wall, or a table.

The above is a brief answer to your conjecture based on my cases, viz.: that epilepsia and somnambulism are often the psychical or psycho-motor wave that follows the subsided epileptic storm in the individual, or it may be the swell that follows the neuropathic storm in a preceding generation, or it may presage a neuropathic hurricane later on in the family descent. It is always more or less a neuropathic disorder, as the night terrors of children and the morbid fears of neurasthenia and all forms of neuratrophia are, and as such demands therapeutic attention and more medical consideration than has been given to it.

There are more things in epilepsia and epileptoid states than have been dreamt of in our clinical philosophy.

500 NORTH JEFFERSON AVE.

Society Notes.

OHIO STATE MEDICAL SOCIETY.

Forty-fifth Annual Session, at Columbus, June 4, 5 and 6, 1890.

President, DR. J. MCCURDY, of Youngstown, and Secretary, DR. G. A. COLLAMORE, of Toledo.

THE secretary reported a membership of five hundred and thirty-six, and nine deaths during the year. The following officers were elected for the ensuing year: *President*, Dr. W. J. Conklin, of Dayton. *Vice-Presidents*, 1st, Dr. D. N. Kinsman, of Columbus; 2d, Dr. B. L. Millikin, of Cleveland; 3d, Dr. D. J. Snyder, of Scioto; 4th, Dr. Orpheus Evarts, of College Hill. *Secretary*, G. A. Collamore, Toledo. *Assistant Secretary*, Dr. J. A. Spence, New Philadelphia. Next place of meeting, Put-in Bay, June 17, 1891.

Papers were read by Dr. C. F. Clark, of Columbus, Errors of Refraction and Muscular Adjustment as Causes of Nervous Phenomena; B. L. Millikin, Cleveland, Cleanliness in Eye Surgery; Dr. N. P. Dandridge, Cincinnati, Surgery of the Knee Joint; Dr. D. P. Allen, of Cleveland, showed a woman on whom he had done a successful nephrectomy.

A committee appointed to secure the more thorough organization of the State, reported in favor of making the members of all the county societies members of the State society, as is done in Indiana. The recom-

mendation was taken under consideration for one year, and the committee continued.

Dr. N. Senn, of Milwaukee, on motion of Dr. R. Harvey Reed, of Mansfield, was elected an honorary member of the society.

TREATMENT OF COMPOUND COMMINUTED FRACTURE

was the subject of a paper by Dr. S. L. McCurdy, of Dennison. The doctor exhibited a number of specimens, mostly of railroad injuries. He was a young man, and advocated heroic surgery, saying conservatism was an excuse for ignorance and cowardice.

The Role of the Microbe was the subject of a wise paper by Dr. A. R. Smart, of Toledo. The Aetiology and Treatment of Pheumonia was the subject treated of by Dr. S. P. Deahofe, of Potsdam, and Vaginal Hysterectomy, by Dr. A. B. Carpenter, of Cleveland.

CARCINOMATA MAMMÆ

was the subject of a paper by Dr. Dudley P. Allen, of Cleveland. The doctor believed the common rules for diagnosis and the prevailing advice as to the operation were bad. He insisted very strongly on the early operation. He thought we should not wait for immobility of axillary glands, or for infiltration of tissues and depression of nipple. He recommended as a method of gaining access to the axillary space, the finding of the axillary vein, and following it up. On early diagnosis and operation depends the success of the case.

Dr. W. W. Pennel, of Fredericktown, used chloroform in the first, second and third stages of labor. He thinks accidents are due to carelessness. In nine-tenths of the deaths from chloroform, the fact of the matter is that the chloroformist does not attend to his business.

PUERPERAL FEVER

was the subject treated by Dr. G. H. Colville, of Harrisville. He favored antiseptic precaution and time in the open air, after having seen an infectious case, before going to a woman in confinement.

Dr. D. N. Kinsman, of Columbus, did not believe in auto-innoculation, or that the disease was carried by scarlet fever. He believes that the poison is introduced through some abraded surface in the genital organs, through which it gains access to the blood. He advised thorough antiseptic treatment of the genitals. Cases formerly regarded as hopeless, under modern ideas of antisepsis, are cured.

THE HIGH AMPUTATION OF THE CERVIX *vs.* TOTAL EXTIRPATION OF THE CERVIX

was the subject treated of by Dr. T. A. Reamy, of Cincinnati. He argued that if we remove the whole uterus for epithelioma of the cervix, why not remove the vagina, bladder and fimbriated extremities of the Fallopian tubes? Three cases in New York, post-mortem, showed disease limited to the external os. Two cases in this section of the country, pathologist showed were not subjects of cancer at all. Women are victims of the rage to mutilate women.

The President's address, by Dr. J. McCurdy, Youngstown, was on the subject,

THE CARE AND TREATMENT OF THE INSANE IN THIS COUNTRY.

He compared the history of the treatment of the insane in the various countries with that in the United States, which was to the great credit of the latter country. The Friends of Philadelphia were the first to treat the insane kindly. He advised the taking of the incurable cases from the county poor-houses and placing them in specially-adapted institutions. He thought the law of New York State should be followed by others, viz., that all officers and attendants should be compelled to pass an examination, and not allowed to enter upon the work unless qualified. They should, when fully entered upon their duties, be placed upon the civil list, and not subject to the caprices of politics. The asylums should be built on the cottage plan. One-half acre should be allowed to each inmate, and rural life encouraged. Medical societies should recognize more than they have done the study and treatment of the insane.

THE RECENT EPIDEMICS OF DIPHTHERIA, SCARLET FEVER, AND LA GRIPPE AT THE SAILORS' AND SOLDIERS' ORPHANS' HOME AT XENIA

was the subject of a paper by Dr. C. M. Galloway, of Xenia. He thought the pages of history might be searched in vain for instances where the attendants in public institutions did more, better, and more faithful work in epidemics of contagious diseases. The Home contained about 1,000 children, and the history of the rise and progress of the disease, and the tireless efforts to dispel it, was truly interesting. Children were placed in certain cottages as often as three times, and still the epidemic returned. It was finally necessary to tear out the floors and plumbing. One young lady of Xenia volunteered to attend the little sufferers, and died of diphtheria. The disease could have been better handled had the hospital accommodations been greater.

THE MORE FREQUENT USE OF CHLOROFORM IN OBSTETRICS

was the subject of a paper by Dr. J. F. Baldwin, of Columbus. His conclusions were as follows: Chloroform relieves pain; it shortens labor; it prevents shock; it prevents nervous and physical exhaustion; it reduces the liability to rupture of the cervix and perineum; it does not conduce, to any material degree, to post-partum hemorrhage; it does not affect the fœtus; it is absolutely safe when properly administered.

He knew of no real contra-indications to its use, and urged that the boon be given to all women who asked it. He uses it chiefly in the second stage, carrying anæsthesia to the obstetrical degree merely; but at the last moment, when the head is distending the vulva, and the agony is most extreme, he produces full anæsthesia. He spoke of the absurdity of the physician who, in the very acmé of human suffering, would refuse the blessed unconsciousness that he quickly supplies for the mere drawing of a tooth or lancing of an abscess.

THE FIRST PORRO OPERATION MADE IN OHIO

was the subject of a report made by Dr. J. F. Baldwin, of Columbus. The patient was a dwarf, twenty-four years old; forty-seven and five-tenths inches in height, with an antero-posterior pelvic diameter of one and one-quarter inches. The operation was successful, both mother and child being saved. He also briefly reported three laparotomies made by him during the year for various diseased conditions. Two of the operations were very difficult; but all the patients made excellent recoveries.

INTRA-PELVIC SURGERY FOR THE RELIEF OF INFLAMMATORY DISEASES

was the subject of a paper by Dr. R. B. Hall, of Cincinnati. This paper was a report of one year's work, and a supplement to ten consecutive cases of abdominal section for the removal of the uterine appendages. The cases tabulated reached eighteen

in number, and all but three had pus. All recovered. He wished to say that he could not make this report unmarred by a death, but that he had them where he could give them careful after-treatment. It has been asserted that the after-treatment in these cases amounts to nothing. As a rule they do not require long treatment, but need very careful attention for a few days at first. These operations are among the most trying in pelvic surgery. No exact estimate can be made before opening the abdomen of gravity and extent of the complications to be met with in any given case. No man has a right to open the abdomen unless he is prepared for any emergency which might occur, and is competent to deal with the conditions found on the spur of the moment. He thought that all cases of prolonged chronic salpingitis should have a prolonged and systematic course of treatment. In many of the cases reported it was impossible to separate the adhesions without bursting the pus sac. In every case where this occurred, and in those where there was much bleeding, the abdominal cavity was washed out. Free washing-out of the abdominal cavity need not be feared; the heat relieves the shock. He has constantly employed it, when necessary, for three years, and has not seen a single case where it caused bad symptoms. The irrigation is continued till the water returns clear. Although all the cases recovered, many of them would not submit to an operation till *in extremis*. The doctor had seen four cases in consultation and advised an operation, which was refused by the physicians in charge and the friends of the patients because an operation involved danger to life. All of these cases died within a few weeks from peritonitis, with every indication of ruptured pus tubes. Three of these cases were proven by autopsy. There is danger in the so called conservative or let alone plan in cases where there is pus in the pelvis as well as in operation.

The Polyclinic.

PHILADELPHIA HOSPITAL.

HÆMOPTYSIS.

I HAVE two cases to present that had the same symptoms in common, and that is hemorrhage from the lung. Neither one has bled profusely except the one who lost a considerable amount of blood at one time and has bled several times since. The first patient has a fair family history; neither parent had phthisis, but one brother died with it. This man has always been well. His occupation has been that of a driver, and by reason of this he has been exposed to all kinds of weather. In 1888 he injured his back by a fall, in the summer, and was treated five months. Since then he has suffered with a weakness in the region of his back. In January, 1890, he had an attack of influenza, and in three weeks he resumed his work. Soon after he was exposed to rain, took cold, and was laid up for three weeks. He has not been well since that time. Cough has persisted, night sweats, and has lost flesh. He had an attack of hæmoptysis, and the next day lost several ounces more blood. He coughs, but raises no sputum. When this history was taken, the cause of the cough was due to pleurisy of the left side. In February he was tapped, and two or three ounces of pleural effusion were removed. A second tapping was done, and, since then, while he has improved some, he has not improved in strength.

Hemorrhage from the lung is due to many causes. It is associated with heart trouble, and, next to this, tuberculosis. Mitral obstruction is the most frequent cause of hemorrhage from the lung. Besides these causes, we have small aneurisms of the aorta that may rupture into the bronchi or trachea; but it is easily diagnosed. There is also a simple bronchial effusion that is associated with whooping-cough and bronchitis, with slight staining of the expectoration.

When there is no tubercular trouble, hemorrhage from the bronchial tubes is a small affair. Where there is a decided hæmoptysis, you may take it for granted it does not come from bronchial oozing, but to an ulcerative process—excluding heart-trouble—and we must consider it to be due to tuberculosis. Some say it is due to nervous excitation, just as in blushing or flush of the face. Virchow gives many instances of hemorrhage of the lung due to a modified circulation, owing to nervous influences, without any lesion of the heart. Such conditions must be very rare; for it is known that, in the most intense engorgement of the lung, in pneumonia, we do not have any true hemorrhage, but only a blood-stained sputum. I think, therefore, in spite of high authorities, I would hesitate to attribute hæmoptysis simply to nervous causes.

This man has had several hemorrhages from the apex of the right lung, where there is a prolonged respiratory murmur and adventitious, moist rales. There is no respiratory murmur over a considerable part of the lower lobe of the right lung, which means a pleuritic effusion. I think this man has tuberculosis. From the fact that pleurisy so often coëxists with tuberculosis, some authors go so far as to say that pleuritic effusion means a tubercular process. I do not believe in this one-sided classification of pleurisy as tubercular in origin; but, in many instances, this is the case—such is the case in this man. I do not think there is any question but that this hæmoptysis is due to ulceration, caused by irritation of the bacillus tuberculosis, with erosion of the blood-vessels.

In most cases, hemorrhage does not require any treatment, but absolute quiet and rest, as a clot will form in the orifice of the vessel and check the hemorrhage. Keep the heart quiet; and, to do this, you may have to use aconite, veratrum, or the bromides. I think the most important point is for the physician to be self-collected and quiet, and not to show any alarm, and not allow the patient to get alarmed. Place the patient in a horizontal position, and, if he cannot quiet himself, give opium. Some say opium acts as a hæmostatic; but I do not believe it has any other effect than quieting the respiratory act—lessening the frequency of the respiration. If the hemorrhage is profuse, give decided doses of opium before ergot. If hemorrhage is bad, give hypodermics of ergot, and apply ice over the seat of the hemorrhage, if it can be found—usually over the apex. At the same time you may place the ice over the heart, as it quiets it. Besides this, we have the method of inhalation of styptic sprays; but this is almost impossible, for enough cannot be inhaled to reach the seat of hemorrhage; and, again, I think that the deep inspirations rather induce than lessen the hemorrhage. If you do use inhalations, use a light turpentine, that is very volatile. Keep the patient at rest a considerable time and improve nutrition.

How long should a patient recovering from an attack of hæmoptysis be kept in bed? It is not easy to decide how long to keep him there. You do not want to confine him longer than is necessary. If

there is any fever present, he should not get out of bed. This point should be first, and when, in your judgment you think it safe, allow the patient to get up.

The other case is similar to this one, and what is good for the one will apply to the other as well.

—*Walker.*

Dr. Clara Marshall recommends the following as a very valuable application to the vagina:

℞.—Acidi carbolici	gtt. xxxij
Alum	ʒ iv
Sodii borat	ʒ ij
Potassæ	ʒ j
Morphinæ sulph.	gr. vj
Olei olivæ	ʒ ij—M.

Inflammatory Leucocytosis.—Von Limbeck's investigations, brought forward at the Heidelberg Congress last year, have shown that the white corpuscles of the blood, physiologically increased in number during digestion, are considerably increased in number in all acute diseases which are accompanied by coagulating exudations—for example, lobar pneumonia and suppurative peritonitis. This increase does not occur in the infectious diseases which give rise to no exudations into the tissues—for example, typhoid fever, intermittent fever, septic fever, even if the temperature rises very high. The danger of this inflammatory leucocytosis is mostly proportioned to the degree of exudation and its richness in cells; it declines critically with defervescence; it does not occur with stationary exudations, and it is not diagnostically, but prognostically, a valuable criterion. In a discussion on this subject, at Prague, von Jacksch confirmed the statements of von Limbeck as regards typhoid and lobar pneumonia in children, the proportion of white to red corpuscles being 1 : 40 to 75. In the latter disease, the hæmoglobin amount was also distinctly lessened.—*British Medical Journal.*

If taken early, the treatment of acne vulgaris is unattended with any difficulty. It is quite a different matter when the case is neglected, as in this instance, or improperly treated.

Miss E. was ordered a bland unstimulating diet, and, twice a week, the following pills at bedtime, followed by a wineglassful of Hunyadi Janos water in the morning:

℞.—Pil. hidrarg.	gr. iij.
Pil. rhei co.	gr. vij.

Ft. pil., ij. Also:

℞.—Acid nitro hydroch. dll.	ʒij.
Tinct. cinch. co.	℥ij.
Infus. cascarillæ ad.	ʒviij.

Ft. mist. sp. coch. amp. ter. die.

Morning and evening the patient was directed to bathe the face with warm water as hot as could be borne, and the following ointment afterwards applied:

℞.—Iodid. sulphur.	gr. x.
Lanolin	ʒj.

Ft. unguent.

Each pustule was touched with the acid nitrate of mercury, twice a week.

This treatment was steadily persevered in, and on the 23d December, 1889—about three months—the nodules and all signs of the disease had entirely disappeared.

I would point out the great value of iodide of sulphur as a local application. The strength should never exceed ten grains to the ounce in the first instance, and perseverance in its use will certainly be rewarded by the ultimate cure of one's patient.

—Hillis, *Med. Press.*

Phenacetine in Whooping-Cough and Bronchitis.—If there is any remedy which will control a disease in a few days, which, if left to run its natural course, would last an average of ten weeks, it may be safely said that in one disease, at least, science has accomplished something. Who has not felt, as he has seen the victim of whooping-cough struggling in its convulsive paroxysms, with its face purple, its eyes bloodshot, and its hands wildly thrown about in agony, the poverty of his art and his science for any relief it could bring to his patient. Scores of remedies have been introduced as specifics, and yet none have been more than partially successful. Possibly the new remedy, phenacetine, may share the fate of its predecessors, and yet we have seen such wonderful results from it in the catarrhal and spasmodic stages of whooping cough, in the teasing and spasmodic coughs of bronchitis and laryngitis, we are led to hope that in this class of troubles it will yet rival quinine in its own specific field.

In a typical case of whooping-cough in a child eight months old, which had passed through its catarrhal stage and was well on in the second or convulsive stage, the paroxysm coming on every hour of a violent character, the action of the drug was almost magical. Under the influence of grain and a half doses every three hours, the paroxysms, in three or four days, were reduced to half a dozen light ones during the twenty-four hours, and in a week had entirely disappeared. Another case was when the attack had not fairly entered the second stage, and yet the exposure of the child and the peculiarity of the symptom left no doubt as to the character of the disease. In three days the cough had very nearly disappeared under the influence of two-grain doses of the drug every four hours, and in a week's time he was able to return to school. In the schoolmate from whom the disease was contracted, the disease was two months in running its course. In both of these cases the vomiting speedily ceased and the appetite returned. Many other cases occur to us as we write, but the ones quoted above were typical, and will suffice to illustrate the prompt action of the remedy. A lady of middle age was attacked with a sharp pharyngitis, the inflammation, as it was relieved in the pharynx, extending down and involving the larynx and upper bronchial tubes. The expectoration was bloody and purulent, and the cough frequent and painful. In addition to the usual medication five-grain doses of phenacetine was given at first every three hours, and as the cough subsided, every four or six hours. The effect was immediate; with the first dose the whole nervous system was quieted, the cough became less frequent, the temperature diminished, and in a few hours the patient fell into a quiet sleep. The improvement was rapid. There is no doubt the drug produces a very marked effect in relieving the irritability of the nervous system, and acting specially upon the vaso-motor nerves, controls to a certain extent the circulation without any dangerously depressing action upon the heart. As an intercurrent remedy we have reason to believe that in many cases it will supersede opium and its alkaloids, and the class of hypnotics of which chloral is the type, because it not only does not prevent, but aids by its quieting power the specific action of other drugs. We have been particularly pleased with the action of phenacetine in the epidemic of grippe, through which we have just passed. In connection with other indicated remedies it has been in our hands of very great service.—*N. Y. Medical Times.*

The Times and Register

A Weekly Journal of Medicine and Surgery.

New York and Philadelphia, July 5, 1890.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

THE TIMES AND REGISTER,
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DYSENTERY.

DYSENTERY is one of the old-fashioned diseases, concerning the treatment of which we should have had our minds made up some centuries ago. But if there is any single fact, theory or hypothesis in the practice of medicine upon which the entire profession agrees, the writer would be humbly thankful to be informed what it is. Simple inflammations have been long considered common ground on which comparative harmony is to be looked for. But since croup is now coming to be considered diphtheritic, and pneumonia is of bacillar origin, we have become unsettled as to what is a simple inflammation, or whether such a thing exists.

In that halcyon period of which we now dimly perceive the first streaks of the dawn, every symptom and sensation, perhaps every emotion, will be instantly recognized as attributable to a bacterial invader or an autogenetic poison. "That tired feeling," which the nostrum-vender sagaciously presupposes as existent in 99 9 per cent. of his fellow-citizens, will be at once traced to the micrococcus lazygenatus, or to the ptomaines generated by overwork and underfeeding. But, as yet, we are existing in the chaotic stage, when nobody knows anything sufficiently to enable him to convince his neighbor of his knowledge.

In that exponent of the *Age* which flourishes in Alabama, and worthily represents the medical art as there practised, Dr. Arbery gives an interesting chapter of personal experience with dysentery. He started in professional work with the conviction that the only proper treatment of this disease in any form was the administration of ipecacuanha in doses of forty grains every twelve hours. This was enforced upon him at his college by the general belief that any other method of treatment suggested would deprive the candidate of the Professor of Practice's vote for graduation. But, when our young doctor's first case of dysentery applied to him and he used the ipecac, the patient objected so vigorously to its harsh action that this method was given up for the future. The reasons for divergence in the views of fallible and not always profound or judicial minds may be seen in the possibilities opening out here for discussion.

1. The Professor may have been mistaken. A conscientious reader rather than a clinician, he may have been misled by the graphic accounts of this treatment in the grave dysenteries of the tropics, and concluded that the method was equally necessary and applicable here.

2. The tyro may not have had the practical skill of his teacher in using the drug. Large doses of ipecac are not likely to occasion much nausea if they are taken with barely enough water to wet the powder, and the patient lies perfectly quiet for some time after taking the dose.

3. The case may have been a very simple one, in which such heroic treatment was out of place. Youngsters are quite prone to the use of sledge-hammers, with which to drive the tacks that present themselves.

4. The patient may have had an idiosyncrasy towards ipecac; which gives rise probably to more idiosyncrasies than all the other drugs in the materia medica put together.

5. The drug may have been bad.

This list by no means finishes the sum of possibilities; but it is enough for illustration.

Looking further, for a less drastic style of medication, Dr. Arbery settled down upon the use of laxatives with opium for the milder cases. When this fails, he very judiciously compels his patient to go to bed and stay there until he is well. In any but very mild cases, rest is the first requisite of successful treatment. Dysentery imposes this necessity upon the patient, and he has for the time but one "business" to attend to: that of getting well. If relief does not quickly follow, Dr. Arbery resorts to his sheet-anchor: cold water enemas. He prefers copious ice-water flushings of the lower bowel, and says they are "grateful, pleasing, and comfortable to the patient," as well as salutary. Sometimes he adds the permanganate of potassium, and employs a retro-injection rectal tube, to keep up a continuous flow. This is followed by an enema of starch, with a full dose of laudanum. After the acute symptoms pass, if the bowels continue to act too frequently, he gives astringents.

It would be difficult to improve on this simple method of treatment in such forms of dysentery as are met with in this country. Many physicians prefer the use of hot-water enemas; just as many prefer hot poultices to cold compresses for pneumonia; but it is certain that in both instances the uses of heat and cold are so nearly alike that, in any given case, the choice may be guided by the sensations of the patient. Various substances have been employed in the thermal enemas, such as laudanum, flaxseed, starch, nitrate of silver, antiseptics; but we have never been able to satisfy ourselves that they added any efficacy. Heat and cold are agents whose inestimable power for good is apt to be overlooked when other agents are administered at the same time.

DYSENTERY is prevailing in several sections of Norristown, and the Board of Health will take prompt action for removing the cause. A large majority of the cases are in families who use water from private wells, which, it is believed, have become polluted by drainage from outhouse pits.

Annotations.

BARNES suggests that all ovaries removed should be preserved, classified and described, in order that the relations of these organs to mental affections may be studied. He mentions a collection made by Coste, of organs taken from women who had committed suicide, but which was scattered and the specimens spoiled, the custodians not realizing its importance.

A CURIOUS use of salol as a diagnostic agent is made by Pal, of Vienna. Acid compounds of phenol are broken up by the secretions of the pancreas and of any other part of the intestinal canal, except the stomach. If, then, salol be given, and the urine responds to the tests for salicylic acid, the salol has passed the pyloric orifice. In two cases where this reaction was not given, occlusion of the pylorus was diagnosed; and this was confirmed by the autopsies.

CREMATION.

THE cholera in Puebla de Rugat, Spain, proves to have originated from the opening up of an old cemetery in which the victims of the epidemic of 1885 had been interred. A few more instances of this kind will help along the cause of cremation. Just what good it does anybody to bury the body of a person dead of a pestilential disease is difficult to comprehend; and if five years' burial is not enough to destroy the specific germs, it becomes a question as to how long such a body continues to be a source of public danger. In the case of a remarkable outbreak of cholera in London, that was traced to the use of water from a certain well, it was shown that this well communicated with the great "gulf" described by Defoe in which were buried the bodies of those who died of the great plague in the time of Charles II. Possibly, cholera may have been an unnoted participant in that visitation, the tremendous mortality of the true plague blinding the public as to the co-existence of another malady; just as the eruptive fevers were long looked upon as varieties of the same disease, as they appeared in Europe at the same time.

If a body retain its infectious properties for prolonged periods, and perhaps infects the surrounding earth, as does the buried body of an animal dead of anthrax, cremation, in such cases, is removed from the domain of argument and becomes an unquestionable duty.

Letters to the Editor.

THE GIN COCKTAIL.

ACCEPT my thanks for your kindness and courtesy in directing my attention to a paragraph in your issue of June 14. The item is a gross perversion of what I said, and is as follows: "The gin cocktail is known to have certain gladsome and refreshing qualities in those milder states of asthenia which follow a day's work and precede an evening meal. Dr. George T. Maxwell, of Fla., however, in addition, recommends the gin cocktail as closely approaching a specific in yellow fever."

In the *N. Y. Medical Journal*, April 26, 1890, is a letter of mine on "The Treatment of Yellow Fever." My purpose and the purport of my letter were to emphasize the valuable suggestions of Dr. Guiteras and Dr. Faget, against the free use of medicines with curative intent. The second paragraph of my letter was as follows:

"Dr. Guiteras said: 'Without attempting to discuss the theories of treatment advanced by Dr. Faget, in another portion of this publication (Annual Report of Supervising Surgeon General, 1889), I find very little to add to the valuable instructions there given. . . . The truth is that, in the majority of cases, there is no indication for treatment in the first days of the disease.' And Dr. Faget said: 'The general plan of treatment, in my opinion, should be: make your patient comfortable.'"

Then, to show coincidence of view between those distinguished gentlemen and myself, I quoted from an article I published in the *Charleston Med. Jour.*, July, 1874, as follows: "Active treatment of yellow fever is worse than useless—it is hurtful. Drugs have no influence upon the disease to avert, or cure it. When I was sick with the disease, in 1853, I would not take a dose of medicine. . . . Were I called upon to give what I consider to be the best plan of treatment of yellow fever, I could do it in a word, viz.: nursing, good nursing—that is, make your patient comfortable."

"I rely entirely, so far as medical treatment—as distinguished from nursing, which comprehends baths, injections, food, ventilation, etc.—is concerned, upon morphine during the first days, gentle saline aperients when necessary, and gin cocktails when the pulse begins to falter. I suppose I must have given a half barrel of the latter in 1888."

This is all I have ever published on that subject, and you will agree with me, doubtless, that only malice, or stupidity, could have perverted what I said into "recommends the gin cocktail as closely approaching a specific in yellow fever."

Your item is credited to the *Weekly Medical Review*. I believe that the *N. Y. Medical Record* is entitled to the questionable honor of having invented the slander.

GEO. TROUP MAXWELL.

JACKSONVILLE, FLA.

Book Reviews.

PHILOSOPHY IN HOMŒOPATHY. By CHARLES S. MACK, M.D., Chicago: Gross & Delbridge, 1890; pp. 174, cloth, 12 mo.

A collection of short papers, written with the idea of obtaining analogies which will harmonize the homœopathic principle with accepted truths.

WOOD'S MEDICAL AND SURGICAL MONOGRAPHS. Vol. 6, No. 3. June 1890.

Contents: Bronchial Asthma; Its Causes, Pathology, and Treatment. By John C. Horowgood, M.D., F.R.C.P.

Convulsive Seizures. By J. Hughlings Jackson, M.D., F. R. C. B.

Surgical Treatment of Diseases of the Brain. By Ernest Von Bergmann, Berlin. Index for Vol. VI.

DISEASES OF THE EYE. NOYES. Wm. Wood & Co., New York City, 1890.

In 1881 Dr. Noyes issued in Wood's Library of Standard Medical Authors a very creditable treatise on diseases of the eye. But since that time so many new and more voluminous books upon the subject have appeared, containing much later studies and ideas, that it was naturally incumbent upon Dr. Noyes to bring out a new book or edition of his former one, and to make it not only thoroughly up to the time in the general as well as special knowledge in ophthal-

mology, but to surpass all other single text-books in size, which latter he has succeeded most excellently by the thickness and quality of the paper used. His first book was a good one, but this is a very much better one in every respect. As he says, the spirit of the book is clinical, and in accordance with this practical intent he has omitted mathematical formulæ, which are so confusing for the general reader, belonging only to the domain of the specialist. He gives all that is necessary in pathology and microscopic anatomy for the well understanding of his subjects and processes, especially in the combination of the eye with the other parts of the system, as brain, kidneys, etc.

The whole book is well illustrated, and written in a plain, readable, and readily understood manner, making it one of the finest text-books upon the subject lately issued. He follows the well known line of Stellwag in presenting the divisions of his subjects of diseases in the causes, the symptoms, the course, the prognosis, and the treatment, in a concise, clear manner, so that every part is clearly defined and readily understood by the general practitioner. The illustrations are many, and clear and distinct. As all text-books give the compiler the chance to express and ventilate his own experience and ideas, so Dr. Noyes has done with himself, and as his experience has been a large and advantageous one for many years, that which he presents is instructive and interesting.

Pamphlets.

Maltine with Pepsin and Pancreatine. Professional Testimonials. The Maltine M'f'g Co., New York. This pamphlet contains some strong testimony from leaders in the profession, concerning this useful preparation.

Knowledge. A weekly magazine "Devoted to supplying information such as one seeks in his cyclopedia and fails to find there, because it is not up to date." A good idea; depending on the way it is carried out. The present number contains items from Bowen to Crooks, including one on the Republic of Brazil. Publisher, John B. Alden, New York.

In Lippincott's for July:

Edward Heron-Allen, the well-known expert in palmistry, has an interesting article upon "The Cheiromancy of To-Day," in which he gives a clear and concise account of how knowledge of character of personal attributes may be derived from a study of the lines, and mounts, and general formation of the human hand.

Mrs. Bloomfield-Moore contributes an important article on "Keely's Contributions to Science." Mrs. Moore gives an idea of the subtle nature of the force with which Keely has to deal, and explains the causes of the delays which have again and again disappointed both the inventor and his supporters.

We have received from the State Board of Health a series of precautionary circulars, for use in case of emergency. They will be forwarded to any address on the receipt of a two-cent stamp, on application to the secretary, Dr. Benjamin Lee, Philadelphia, Pa. They consist of precautions against Consumption, Typhoid Fever, Contagious and Infectious Diseases, Scarlet Fever, School Hygiene and the care of Infants.

The Medical Digest.

Trombetta, of Messina, has had a successful case of splenectomy. One day after the operation both red and white corpuscles began to increase in number.

Exalgine has been given by Atkinson (*Brit. Med. Jour.*) in twenty-four cases of various forms of neuralgia, with very unsatisfactory results.

Sprains, however severe, are treated by Riches (*Jour. de Méd. Prat.*) by fifteen minutes' immersion in hot water, repeated daily, followed by the application of a rubber bandage and massage. He reports good results.

Hummer, of Geneva, has rediscovered Corning's method of procuring cocaine anæsthesia and avoiding the risk of toxic effects, by confining the cocaine to the tissues to be anæsthetized by the employment of rubber cords and bandages.

Extreme Dryness of the Tongue is a distressing symptom, which does not readily yield to treatment while the concomitant cause remains in operation. For this condition, Blackman (*Brit. Med. Jour.*) gives pilocarpin, gr. $\frac{1}{20}$ to $\frac{1}{10}$. The effect is delightful.

Balsams are usually supposed to cause irritation of the urinary organs, when given in large quantities. Stockman (*Brit. Med. Jour.*) has made some investigations concerning balsam of Peru, storax, benzoin, and tolu. As a result, he considers it proved that all these can be given in as large doses as are ever desirable, without any risk of producing albuminuria or nephritis. They never cause enough irritation to injure the healthy kidney, although they may irritate one already diseased. In some cases, a resinous body from the balsams has been mistaken for albumen.

At the Société de Biologie M. Roger presented a paper of much interest. His investigations have been upon the substances which increase the virulence of certain microbes. He inoculated rabbits with pure cultures of symptomatic anthrax, to which this animal is ordinarily refractory. But if one injects at the same time the liquid of a sterilized culture of micrococcus prodigiosus, the anthrax develops rapidly and the animal dies.

Moreover, in injecting very attenuated cultures, which have become inoffensive, of pneumococci and streptococci, but adding one or two drops of a sterilized culture of pneumococcus prodigiosus, M. Roger has seen the pneumococci regain all their virulence and the animal succumb to these two injections, either of which alone is harmless.

He has succeeded in isolating from these cultures of micrococcus prodigiosus the principle which so powerfully stimulates microbic virulence. It is soluble in glycerine, from which it is precipitated by alcohol. Wash with alcohol and ether, and dry rapidly. It is a yellowish powder, which has the double property of liquefying gelatin and modifying the immunity of animals. It appears to be composed of two ferments—the first liquefies gelatin, and loses its power when heated to 60° for half an hour; the other favors infection, and can be destroyed only by a temperature of at least 130°, sufficiently prolonged. This substance, injected into the veins in doses of one or two drops, abolishes the immunity acquired by an animal.

It is known that Rossbach demonstrated that the tissues of animals poisoned by a large dose of papaïn are full of microbes, showing that the spores accompanying the papaïn develop admirably in the medium created by this ferment. Roger, introducing into the veins papaïn in non-lethal doses, has found that they favor the increase of virulence of attenuated cultures, such as those of pneumococcus and anthrax, in the same manner as the sterilized cultures of micrococcus prodigiosus.—*Revue de Ther.*

TREPHINING FOR GENERAL PARALYSIS. — Shaw and Cripps (*British Medical Journal*) give the history of a case upon which they had operated last July. After this he went on very favorably; his mental condition improved greatly; he was cheerful and able to read several hours consecutively; his memory improved, and he had no recurrence of the convulsive attacks. The motor symptoms did not improve. So well did he appear mentally that his discharge was ordered, when, on February 14, he had a strong attack of convulsions, and lay in a comatose state till the 20th, when he died. During this last attack there was some pulsation, but no bulging over the trephine hole. At the post-mortem, the orifice was found to be filled with a dense, fibrous membrane, which prevented bulging, and six ounces of fluid were obtained from the brain. It would have been good practice to have operated again.

ROUTIER describes a case of fracture of the cranium in the left fronto-parietal region, without external wound, resulting from a fall. Immediately after the injury the patient was giddy, but could regain his bed. Some hours later he was in complete and profound coma. Sensation much retarded on the right side, hemiplegia, contractures, incontinence.

The gentle and gradual production of coma, the sensory troubles and hemiplegia, led Routier to believe that there was a compression of the brain due to a clot, without doubt from a lesion of the middle meningeal artery. This decided him to have recourse to the trephine, which he applied over the left Rolandic region. He found a fracture of the cranium and removed a clot weighing seventy five grammes. But he could not tie the artery which was wounded. He decided to check the hemorrhage by tamponing with iodoform gauze and suture the skin, to secure compression.

Five hours after the operation consciousness had returned to the patient, as well as motion. But the next day there was complete aphasia, which endured as long as the compression by the gauze was maintained. When the latter was removed it was found that it had compressed the angle of the convolution of Broca. This compression removed, the patient recovered his speech in two hours. Complete recovery ensued in a very short time.—*Revue de Ther.*

SURGICAL TREATMENT OF PULMONARY TUBERCULOSIS.—Tillmanns, at the Berlin Surgical Congress, showed a patient whom he had two years previously cured of tuberculosis of the left lung and pleura, by extensive resection of the front part of the chest wall. The patient seemed in the last stages of phthisis. The left lung was highly phthisical, the pleura adherent; in the sputum numerous bacilli were found. The left pleura contained an empyema of two and one-half years' duration. Several fistulas traversed the chest wall, which was also tubercular. The heart was dislocated to the right. The right lung was comparatively healthy. The preceding two and one-half years the patient had spent mostly in bed. Repeated resections of ribs had been made, but failed to cure the empyema. On May 27, the front part of the left chest wall was resected *in toto*, for an extent of five to twelve centimeters, from the second to the sixth rib, close to the sternal borders. The width of the portion removed was five centimeters at the upper part, and twelve at the lower. The whole left pleura was highly tubercular, the lung phthisical and only as large as a man's fist, and firmly adherent. The lung was partly covered by a skin flap taken from the thorax. The pleura was energetically scraped with a sharp spoon, and stuffed with iodoform gauze. June 22, after repeated curetting, the pleura was converted into a cutaneous cavity, by transplanting skin, after Thiersch's method. Local treatment of the lung proved unnecessary; the organ shrank steadily, and the tuberculosis underwent a spontaneous cure. The patient was discharged cured July 23, and has remained well ever since; and now presents a blooming appearance.

—*British Medical Journal.*

DRS. MCKENDRICK, COATS AND NEWMAN, reviewing the report of the Hyderabad Commission on Chloroform, summarize their points of agreement as follows:

1. We are agreed that death from chloroform occurs by failure of respiration, and that this is probably the most frequent mode of death.

2. We are agreed that chloroform causes a gradual fall in the blood pressure as registered by kymographic tracings from the carotid artery. This is the normal effect of chloroform.

3. We are agreed that when chloroform is pushed this gradual fall may be so great as to become in itself "dangerous." This is admitted in Paragraph (8) of the Hyderabad Report, where they state that after an animal has been involuntarily holding its breath "the grasping respiration which succeeds then causes very rapid inhalation of chloroform, with immediate insensibility and a rapid fall of blood pressure, *which quickly becomes dangerous.*" (The italics are ours.)

4. In addition to this, which we may call the normal effect of chloroform on the heart and blood pressure, both of us observed peculiarly sudden and unexpected falls of pressure, with slowing of the heart. We are agreed that this phenomenon occurs, and the Hyderabad tracings show that it is frequent. We differ as to the cause of its occurrence. The Hyderabad Commission ascribing it to asphyxia, while we contend that neither in the time of its occurrence after holding the breath, nor in its general characters, does it correspond with the fall of pressure due to asphyxia Whatever be the explanation, the occurrence is in itself sufficiently serious, and should not be minimized as forming one of the sources of danger in the administration of chloroform.

—*Brit. Med. Jour.*

A DIETETIC PROBLEM.—While the fact has been well recognized for centuries that domestic plants and animals are subject to modification under cultivation, and that most of the species now existing are the results of methodical selection and intelligent supervision, we are very slow in learning to appreciate the fact that man himself can be similarly improved. Some recent experiments upon feeding swine, undertaken under the auspices of the State of Michigan, have shown not only the well-known fact that the proportion of fat in the body is dependent upon the manner of feeding, but also that the vigor and development of muscles and bony skeleton can be varied at will by the selection of appropriate food. Moreover, it was shown in these experiments, as might indeed be expected, that the feeding of the sow, previous to and during pregnancy, had a great influence upon the size and vigor of her litter, and upon their subsequent power of resistance to disease.

Popular belief holds that the size of the child and its strength are largely influenced by the diet of the mother, and that her unsatisfied desires for certain

articles of food may even produce physiological or pathological changes, such as deformities or mothers' marks. The theory has been lately advanced that even the sex of the child may be determined in a similar manner. The statement being that by feeding one parent so as to have an excess of vitality over the other, the sex of the offspring will be that of the less vigorous parent. There are some facts offered in support of this which render it very plausible. Such a result, as every one knows, is brought about in this way among the bees. At all events, it shows, if true, the all-prevailing influence of dietics. If we can, by proper food given to the mother during pregnancy, prevent rickets, defective teeth, marasmus, and all the evils of defective vitality in the offspring, and even influence its sex and development, is not this subject worthy of more attention from the profession than it has yet received? If intelligently pursued with all the light of modern science, may we not hope for the most beneficent results to the race? If neglected, can we doubt that physical and moral degeneration will overcome our highest nations as well as the most ignorant savage?—Woodbury, *Dietetic Gazette.*

SOUTHAM thus describes his method of operating for stricture of the urethra by internal urethrotomy:

Operation.—The instrument I always employ for division of the stricture is Teevan's urethrotome, which is carefully carbolized. The patient having been anæsthetized, about a drachm of carbolic oil (1 in 16) is injected into the urethra. A ferret is passed through the stricture, and the urethrotome having been screwed on to this and made to follow it, the roof of the urethra at the point of constriction is divided from before backwards in the usual way. The instrument is then withdrawn, together with the ferret, and the stricture is aftewards dilated by passing Lister's sounds, 9–12 to 12–15. A full-sized silver catheter is then introduced into the bladder, and the urine having been drawn off, the viscus is thoroughly washed out several times by injecting a saturated solution of warm boracic acid. About two ounces of the solution are left in the bladder, and as the catheter is withdrawn the urethra is also flushed out with the lotion. An iodoform bougie is then passed down the canal as far as the neck of the bladder, so that it may lie in contact with the urethral wall at the seat of division of the stricture. During the operation especial care is taken to protect the patient from exposure to cold, and in addition to the ordinary precautions the lower extremities are wrapped up to the hips in thick woolen bandages.

After-treatment.—As soon as the patient recovers from the anæsthetic, ten minims of liquor opii sedativus are given, and the dose is repeated in a few hours if he is at all restless and complains of pain. He is directed to hold his urine for six or eight hours, if possible; at the end of this period, when he is allowed to pass it himself, the urine will generally come in a good stream. For a time micturition is attended by more or less pain and smarting, and in most cases the urine will be slightly stained with blood for the first day or two after the operation. On the following morning, if there is no sickness from the anæsthetic, the boracic acid mixture, which had been discontinued on the day of operation, is commenced again. On the fourth morning, either a cocaine bougie or a drachm of a 10 per cent. solution of cocaine is introduced into the urethra, and, after an interval of ten or fifteen minutes, Lister's sounds, 9–12 to 12–15, well carbolized, are passed through the stricture. By means of the cocaine the pain which usually attends the passage of an instrument for the first time after operation is more or less completely prevented. During the remainder of the patient's stay in the hospital Lister's sounds are passed daily, and before leaving he is himself instructed how to pass a No. 9–12, which he is allowed to take away with him, so that in the future he may keep the stricture dilated by the occasional passage of an instrument, and therefore be independent of further surgical assistance. The average length of time spent in hospital after the operation in the six cases referred to was twelve days.

Contra-indications.—I am of opinion that internal urethrotomy should not be performed in cases where the urine is alkaline and offensive, containing a large amount of pus, nor again in cases where it remains so after a course of boracic acid administered internally and continued for a fortnight or three weeks. When these conditions exist, they usually point to the presence of a severe form of chronic cystitis. Under these circumstances the stricture, if it does not yield to dilatation, is best treated by external urethrotomy, and at the same time the crystitis can be relieved by draining and irrigating the bladder through the perineal opening. Provided that the urine is acid, I believe that a slight amount of pus in the urine is not a bar to internal urethrotomy; for this condition was present at the time of operation in four of the six cases above referred to.—*Lancet.*

THE NEED OF NOURISHMENT IN CHILDREN OF DIFFERENT AGES[1] (Dr. Camum, of Urach).—The subject may be divided as follows: 1. Their complete wants; 2. The needs of each nutritive substance (albumen, carbohydrates, and fats.)

Under the first head the several functions of the body (especially the temperature of the skin, the elimination of water by the lungs, and by muscular action when working, are only possible by a continuous generation of a sufficient quantity of energy in the body, the only source of which is the food.

If an adult, in a state of rest, averages in a day 2,400 heat-units (or 100 per hour), during the performance of the different functions, and inversely, just so many heat units would have to be produced, as the temperature of the body is nearly constant.

100 grammes (1,500 grains) of albumen and 100 grammes of carbohydrates always give 410 heat-units; but 100 grammes of fat, 930 heat-units, through decomposition in the body (on condition that these materials are supplied by the so-called "mixed diet."

From theoretical views, as well as experiments made, it is highly probable that, in men idle and working, the differences in size and age, the elimination of force, and therefore force-production, is nearly proportional to the area of the skin under similar external conditions and in like exertions.

The skin-area, represented by "O," can be used in the formula found by Vierordt-Meeh, taking the weight "G."

$$O = 12.31 \text{ kilos } (G) \times 9\frac{2}{3}.$$

The calculation of the amount of heat produced is made from the nourishment consumed, allowing for the growth of the children and from the organic constituents found in their urine and fæces.

In the following tables, the calculations for adults are from Kubner; the seven cases of infants nourished by their mothers' milk, and the five cases of older children were under my own personal care, and were systematically observed through a period of twelve

[1] Translated by H. Hamilton, M.D., Harrisburg, Pa., from *Deutsch. Med. Wochenschrift*, May 22, 1890, No. 21.

years. Upon a square meter (1.20 sq. yds) of the surface of the body), the following number of heat units were produced in twenty-four hours:

TABLE I.—ADULT MAN.

	At rest.		At labor.			Ave. toil of old gray-headed man and wife.
	H'ng'ry	Satisfi'd	Movement of the body.	8 hours easy toil.	8 hours hard toil.	
Heat-units.	1134	1189	1210	1400	2300	1100

TABLE II.—MOTHER SUCKLINGS.

Age.	Birth month.	2 mos.	3 mos.	4 mos.	5 mos.	6 mos.
Heat-units.	1002	1152	1234	1237	1170	1201
Wt. kilos.	3.6	4.2	4.7	5.3	5.9	7.2
Wt. pounds.	7.92	9.24	10 34	11.6	12.98	15.84

TABLE III.—ARTIFICIALLY NOURISHED SUCKLINGS.

Age (months).	1	2	3	4	5	7	8	12
Heat-units.	1051	1131	1373	1789	—	1749	2328	
Heat-units (other authors).		2081			1806		1654	1706

TABLE IV.—OLDER CHILDREN.

Age (years).	2	3½	6	7	8	10	12½	14
Heat-units.	1487	1483	1473	1431	1341	1375	1311	1258
Wt. kilos.	10.8	13.1	16.3	18 4	20.6	24.3	31.3	36.4
Wt. pounds.	23.76	28.82	35.86	40.48	45.32	52.46	68.86	80.08

The babies on their mothers' nourishment only in the first three months furnished the least relative amount of heat, most likely due to their being especially well taken care of, and also because little movement was required of them. While in the older children the decrease in the relative quantity of heat commences about the time they begin to attend school and are compelled there to sit still.

TABLE V.—INFANTS ON MOTHERS' MILK.

Age (end of)	Mos.	1	2	3	4	5	6	Man at easy labor.
		grams						
Absolute amt. of org. sub. consumed.		56.4	70.5	82.1	88.8	89.2	103.6	67.1
Of 100 parts of organic substances consumed are:	albumen.	21.1	19.1	17.5	17.4	15.1	15.1	18.4
	carbo-hydrates.	50.0	52.2	55.0	55.1	56.6	56.6	73.7
	fat.	28.9	28.7	27.5	27.5	28.3	28.3	7.9
Of 100 parts of above produced heat-units as fol's:	albumen.	11	11	10	11	9	10	16.7
	carbo-hydrates.	39	39	43	46	42	42	66.9
	fat.	50	50	47	43	49	48	16.3

TABLE VI.—OLDER CHILDREN ON MIXED DIET.

Age (years).	2	3½	6	7	8	10	12½	14	Man at easy labor.
Absolute amt. of org. sub. consumed.	186	211	257.3	295.3	280.5	321.5	375 7	399.	671
100 parts of org. substances consumed are: albumen	25.3	21.6	20.7	22.4	19.4	18.3	19.7	20.3	18.4
carbo-hydrat.	51.6	60.7	68.3	66.4	68.8	70.6	72.0	70.7	73.7
fat.	23.1	17.7	11.0	11.2	11.8	11.1	8.3	9.0	7.9
100 parts of above produced heat-units as fol's: albumen.	21	18	18	21	17	16	18	18	16.7
carbo-hydrat.	42	49	60	56	60	62	65	64	66.9
fat.	37	33	22	23	23	22	17	18	16.3

In the artificially-nourished sucklings (not taking into account the observations of Bildert upon infants of one to three months), the heat equivalent was unusually large.

To explain this condition, we must consider that the work of digestion demands a certain amount of energy, and in unsuitably (un-naturally) fed individuals very considerable amounts of force, thereby greatly impairing the usefulness of the food to the organism.

The composition of the food being given, the above tables were constructed (see tables v and vi).

From the foregoing tables a correct estimate can be made of heat elimination from the surface of the skin, noting the weight and age of the baby; hence its need of nourishment and the composition of the food it should have, provided it is not either too light or heavy for its age.

RUSSIAN NOTES.

TRANSLATED BY C. D. SPIVAK, M.D.

THE EFFECT OF PILOCARPINE IN TRAUMATIC DEAFNESS, AND ITS COLLATERAL EFFECTS. (Dr. O. E. Appelberg).—I am prompted to publish the following case in view of the fact that since my announcement in June, 1888 (*Novosta Terapii*) of the effect of pilocarpine upon the restoration of hearing, like reports do not cease to appear from time to time; but, as to its collateral effects, no mention is anywhere made.

K. K., peasant, thirty years old, well built and preserved, received a scalp-wound while working in a shaft, from the fall of a piece of wood. The wound was at the border of the hairy part, to the right of the median line, parallel to the sagittal suture, about two and one-half inches long, and reaching the periosteum. The wound healed quickly. The patient, soon after the accident, became deaf in both ears, and blind in the only eye he had. In order to talk with the patient, it was necessary to bring the lips close to the ear of the patient and speak in a very loud voice. His vision was so impaired that he could not count his fingers at a near distance. Examination gave negative results. Patient complained of dizziness, headache, ringing in the ears; was apathetic, and suffered from insomnia. All the means used to restore sight and hearing (pot. brom., strych., nitroglyc., etc.) did not produce any effect, and only chloral was given for insomnia. On the 22d of June commenced treatment by pilocarpine injections (pilocarp., gr. iij to aquæ, ℈viij.)

June 22. Watch closely applied; ticking feebly heard by right, none by left. Injected one-fourth of a spritz syringeful of the above solution. In two to three minutes salivation; no sweat.

June 23. Hearing same. Injected one-half a spritz. Copious sweat and salivation. After the sweating, complained of chill.

June 24. Right ear hears ticking at a distance of one and one-half centimeters; left, when closely applied. Injected three-fourths of a spritz. Sweat, salivation and chill.

June 25. Hearing same. Full spritz. Copious salivation and sweating; chill.

June 26 and 27. Status quo. Injected same. After-effects same.

June 28. Subjective feeling of patient raised; vivacious; glad to hear the signal bell. Full spritz; same phenomena.

June 29. Left ear hears ticking at considerable distance: right same. Full spritz; same phenomena.

June 30. With both ears hears the ticking at quite a distance. When talking to him loudly, he hears at a distance of one foot. Full spritz; same phenomena.

July 1. Status quo ante Ordered solution of pilocarp., gr. iv to aquæ same Sweat and salivation more copious; chill.

July 2. Hears the ticking with both ears at a distance of five and one-half centimeters. Same phenomena.

July 3. Hearing same. Full spritz; phenomena same. While being treated by pilocarpine the constipation disappeared. Complained that during the night some one pricked him with a needle through the wall. To convince him of the impossibility of such a thing we did not succeed

Having recalled to memory the article in the *Novosti Terapii*, in the case of Waugh,[1] where ext. fluid folior. Jaborandi was given with the collateral result of mania persecutivæ, I suspected the same in my case. To my sorrow, in such a wilderness as this Siberian *Taiga*, I could not collect more literature on pilocarpine.

In the Pharmacologie of Herrmann, Kohler, Nothnagel and Rossbach, in the text-book of Schopera, comparative tables of the effects of drugs by Berlioz, and an old pharmacology by Sakolovski, I could find nothing.

Seeing the favorable action of pilocarpine on the restoration of hearing, and knowing, from the case of Waugh, that the collateral effect of pilocarpine will cease with the discontinuation of the drug, I continued the injections daily.

July 4. Hearing same. Complained that he was being pricked again; that his toes were besmeared with something by somebody; that the "boys play tricks on him."

July 5, Morning. Hears better than yesterday; can be talked to without raising the voice. The same complaints.

Evening. The phenomena of mania persecutivæ increased; hallucination by day; being pricked, smeared, and persecuted. Pilocarpine discontinued. Hears even a whisper. At night complained that cold water was being poured on him all the time. Insomnia; chloral.

July 6, Morning. Complains, "I have no rest; wherever I go, they pour water on me." After administration of chloral, slept. Towards evening became calm.

July 7. Hallucinations as before. Insomnia.

July 8. Excitable; refuses to take medicine; chloral in alcohol (to deceive him), pot. bromide. Towards evening calmer.

July 9. Status quo. Refuses medicines. Insomnia. Fears everything and everybody; everybody talks about him.

July 10. Status quo.

July 11. Calmer. Only hallucination of hearing left.

July 12. Status quo.

From 13th to 18th, the hallucination decreased.

On the 19th no hallucination. In a few days was discharged, with normal hearing.

—*Russkaya Medicina.*

[1] This case was published during 1887, in the *Medical World*. It is doubtful whether the mental phenomena there detailed were directly due to the jaborandi, or to its effect in forcing a secretion of milk which nature had never been able to sustain previously.—W. F. W.

"Three Seasons of Koumiss Cure in Shabo" is the title of a lengthy article by M. B. Scherr, which appeared in three consecutive numbers of the *Medicina*.

Gospodin (Mr.) Scherr gives the history of the introduction of koumiss into Russia, and tells us that the first pioneers were the Tartars of Crimea and Caucasus. The pharmacists Mai and Dubovski were the first to recommend it to the public at large in Odessa. Now there are in Odessa three institutions where koumiss is manufactured, but none is under the supervision of a medical man.

The mode of producing koumiss, as done by the Tartars, is as follows: A piece of bread is masticated well, and then exposed to the air under a temperature of 34–40° R. The sugar produced by the action of ptyalin on the starch is therefore a favorable soil for the generation of lactic acid bacteria. The bread is introduced into the horse-milk, and, as soon as fermentation sets in, it is bottled and hermetically sealed. Sugar is added in order to cover the sour taste of the excess of lactic acid.

The mode of preparing koumiss practised by Gospodin Scherr is as follows: Two parts of pure barley malt and one part of wheat flour is mixed with a sufficient quantity of water of a temperature of 50–52° R., and placed in an oven for two or three hours, where the temperature is not higher than 48°. The mixture is gradually cooled down to 40°, and left for a few hours to ferment. The spores of lactic acid bacteria find their way into the mixture and generate lactic acid fermentation. Should there be a doubt as to the existence of lactic acid spores in the room, the walls are smeared, a night before, with cow's milk. Then the mixture is suddenly cooled down to 20° (in order to avoid the generation of butyric acid, for which the temperature of 20°–30° is most favorable), and ten per cent. yeast in some form is added. The fermentation is considered complete when half the amount of the sugar is decomposed. Then the ferment, wrapped in gauze, is introduced into freshly-obtained horse-milk at a temperature of 24°, and left to ferment for twenty-four hours in open vessels, and then bottled and sealed.

During the three seasons, Dr. Scherr had under koumiss cure 274 patients, of whom 204 were consumptives. He gives the following results: 204 patients—74 males, 130 females; 22 cured, 76 improved, 96 no change; 10 died in Shabo. The average number of days passed in Shabo, 105; average number of bottles of koumiss drunk by each patient, 140; average increase in weight, 7 pounds.

Medicina, Nos. 10, 11, 12, 1890.

Richet finds that in rabbits the development of tuberculosis is delayed by introducing the blood of the dog into the peritoneal cavity. His results are very curious, and point to practical applications of the greatest interest. He inoculated ten rabbits with an equal quantity of tuberculous material. Two, also, received a certain quantity of blood in the peritoneum. A third received, instead of blood, an infusion of dog's liver. Three other rabbits served as objects for comparison. The three latter became thin and feeble, no longer able to stand up. That one that received the infusion of liver was a little less affected. The two which received the blood were alert, look well, and had gained 1,560 grammes in weight; while the two controls had lost four hundred and forty grammes. Finally, however, all died; but those which received the blood survived much longer than the others—even for many months.

—*Revue de Ther.*

Sysol is recommended by Gerlach, as a bactericide more powerful than phenol or creolin, less poisonous than either, and cheaper. It may be used either upon the body or as a disinfectant for closets, etc.

Hervieux strongly advocates the substitution of the goat for the calf as a source from which to obtain vaccine virus. The reasons are: The danger of inoculating with the virus of tuberculosis, to which the bovine race is very prone, and the fact that the goat is not liable to tuberculosis.

Maminoff recommends the helianthus aunnus as a remedy for ague. He gives ten to twenty-five drops of a strong tincture made from the fresh flowers and bark, one part to five of menstruum. The fever fell the next day, and disappeared in three days. In recent cases one day's treatment sufficed. No bad after-effects occurred.—*Revue de Ther.*

The discussion in Paris over the relative virtues of kola and caffeine has resulted in a challenge—not to the field of Mars, but to the icy heights of the Alps. Duhamel proposes that Sée and Lapicque shall designate an *alpiniste*, who, with him, shall ascend Mt. Blanc, the alpiniste to have no nutriment but caffeine, while Duhamel sustains life with his kola biscuits. Thus the comparative effects of the two agents may be definitely ascertained.

—*La Tribune Méd.*

Grancher advocates a special antiseptic regimen for those ill with contagious diseases. Believing that contact rather than diffusion in the air is the method of transmitting germs, he surrounds each patient with screens of metallic netting; provides him with a full set of all articles used by him, which are appropriated to his exclusive use; he is placed in a supplemental infirmary, exclusively devoted to such cases, and the most careful and severe prophylactic measures are enjoined upon the attendants. To disinfect objects used by the patient Dr. Grancher provides a stove with compressed steam, boiling water or the liquor of Van Swieten acidulated.

—*Revue de Ther.*

Hypertrophy of the Heart During the Period of Growth.—The treatment varies much. We have seen children to whom quinine and iron were given to combat the palpitations which were thought to have induced the hypertrophy and which were attributed to anæmia, chlorosis, or dysmenorrhœa. But this is all based on a careless examination. The treatment which has always answered with us has been the combination of digitalis and iodide of potassium; the digitalis in the dose of ¾ grain of the powder, in infusion, and the iodide to the amount of 3¾ to 11¼ grains.

The hygienic treatment differs according to the age of the patient. In childhood we direct a diminution of the work—mental and physical—and a nitrogenous diet. In youth the hypertrophy not being compensatory, but simply physiological and exceeding the requirements, we can, without fear, advise exercise, and labor—manual and intellectual.

—*Revue de Ther.*

FRENCH NOTES.

By A. E. Roussel, M.D.

Mercurial Flannels.—Intended to replace the use of frictions with mercurial ointment in the treatment of certain forms of syphilis. We take a piece of thick but soft flannel, which we soak in a solution of carbonate of soda; it is then washed out, taking care to preserve a slight alkalinity; after which it is plunged in a solution *d'azotate mercureux;* it is then withdrawn from this bath and immersed in ammoniacal water; the mercurial salt is decomposed, and the flannel becomes grayish black in color; it is then allowed to dry, but not exposed to the sun's rays; after which it is placed in an air-tight vessel.

Twenty-five centimetres of this flannel are applied on the skin of the chest and abdomen. The patients inhale the vapors which are thrown off, and which are well supported.

—*La Médecine Moderne.*

Intra-venous Injections of Quinia in Malaria.—According to Prof. Bacelli, this method of treatment, employed with antiseptic precautions, constitutes the most prompt and efficacious means of treating the pernicious form of malarial fever.

After having applied a ligature to the arm, Bacelli injects into one of the larger veins forty to sixty centigrammes of the following solution:

R.—Chlorhydrate of quinine	1 grm.
Chlorate of sodium	75 centig.
Distilled water	10 grm.

—*La Bulletin Médical.*

The Treatment of a Red Nose.—One-fifth of the cases, according to Unna, are due to acne rosacea, with vascular dilatation; it has often a direct connection with seborrhœa of the scalp; this seborrhœa should be treated by the ordinary methods.

When acne rosacea is present, Unna administers fifty centigrammes of ichthyol internally, and prescribes at the same time aqueous lotions of the same substance. The following is also used:

R.—Zinc ointment	20 grms.
Powdered rice	5 "
Sulphur	2 "

Unna also advises punctures of the dilated venous trunk with Hebra's instrument, repeated two or three times a week. The use of ichthyol soap is also indicated. Warm water alone should be used.

—*Revue de Thérapeutique.*

A Non-bitter Solution of Quinine (M. Lutz.)

R.—Sulphate of quinine	0.50 grms.
Dilute sulphuric acid	0.50 "
Essence of mint	5 gtts.
Saturated solution of saccharine	10 grms.
Distilled water	90 "

—*Journal de Médecine.*

A Strange and Fatal Disease.—This disease is more fatal than yellow fever. It is called the black fever in some countries. It has played havoc in Honduras and in the southern part of Central America. A hospital which has just been erected near the proposed line of the Nicaragua Canal has some two hundred victims. One-half of them will probably die. The black fever comes almost as suddenly as a stroke of lightning and there is no relief. If you attempt to get out of the country you would not survive and you must remain quiet and take your chances. The first symptoms are burning sensations, and before you have been afflicted two hours you feel as if you were being roasted alive at the stake. Unless the black fever disappears from that country, or a cure is found for it, the loss of life will be appalling.

—*Chicago Tribune.*

Medical News and Miscellany.

ALCOHOL has gone up in price.

KOSSUTH is affected with cataract.

DR. J. J. O'NEIL is at Sea Isle City.

DR. W. H. TRUMAN is at Asbury Park.

DR. J. W. SHOEMAKER is at Ocean City.

DR. H. H. BIRNEY is at Cape May Point.

DR. HOFFMAN is at his Long Branch cottage.

DR. TOMLINSON, of Plainfield, takes in Europe.

DR. TINSLEDT, of New Brunswick, is at Seawaren.

DRS. B. B. WILSON and E. Price are at Longport.

DR. DE. BAUN, of Passaic, climbs the White Mountains.

READING'S first sunstroke this summer occurred June 26.

DR. D. MAGIE, of Paterson, goes to West Hampton, L. I.

DR. P. M. BERNARDY died last week, aged eighty-five years.

DR. PIERSON, of Orange, has gone to Europe for his health.

DR. VAN RIPER, of Passaic, tours with his family in Europe.

DR. ELLA PRENTISS UPHAM has located at Asbury Park.

DR. GREEN, of Elizabeth, spends a month at Bass Rock, Mass.

DR. T. B. WELCH, of Vineland, has a visitor from Timbuctoo.

THE Spanish doctors say their young king has hydrocephalus.

DR. R. P. LINCOLN, of New York, is at leafy Netherwood.

DR. CARMAN, of Englewood, tramps through the Adirondacks.

DR. MACKENZIE and wife, of Metuchen, are tripping in Canada.

DR. A. MEYER, of New York, has taken a cottage at Long Branch.

DRS. D. L. WALLACE AND TICHENOR, of Newark, summer at Belmar.

DRS. MATHEWSON of New York, and Morrell, have climbed to Summit.

DR. SCHOTT, of Philadelphia, has purchased a cottage at Atlantic City.

DR. VAN SHOTT, of Passaic, betakes himself to Saratoga's happy lake.

A CASE of beriberi has turned up at Brooklyn on a vessel from Macassar.

DR. ARCHER, of Allendale, July's at Greenwich, Conn., while his townsman, Dr. Osborn, goes to France.

ELEVEN nurses graduated from the Training School of the Episcopal Hospital.

MENTHOL is recommended by Gottschalk in the hyperemesis of pregnancy.

CHARLES BARTON, Business Manager of the Casino, is sick with diphtheria.

MEDICAL DIRECTOR A. L. GIHON sails for Europe to-day, to stay till September.

DR. C. A. FRANCE, of Manayunk, is spoken of as a candidate for the Legislature.

THE leper returned from Boston to Liverpool, has been sent to her friends in Sweden.

DR. DELL BURGESS, the only American physician of Havana, is at Richfield Springs.

LEPROSY exists in every Australasian colony excepting Tasmania and New Zealand.

STUDENTS matriculating at Vienna are required to present their photographs to the dean.

DR. TAYLOR, of Ridgefield, has penetrated the wild and woolly West as far as Colorado.

DR. J. J. SULLIVAN, of Passaic, treats himself to a summer's botanizing in the Adirondacks.

DR. STRAYER, of Roaring Spring, Pa., will be nominated as an Assemblyman of that place.

DRS. A. FRICKE and D. G. Brinton divide their time between Atlantic City and Philadelphia.

THE German Reichstag boasts four doctors, while the French Chamber of Deputies swarms with them.

DR. WILLIS G. WESTMORELAND, editor of the *Atlantic Medical and Surgical Journal*, died on June 27.

AN eleven-year-old boy in Woburn, Mass., died of hydrophobia last week; two months after being bitten.

DR. RICHARD A. EVANS has been renominated for Superintendent of Public Instruction at Springfield, Illinois.

QUEEN MARGARET COLLEGE, Glasgow, will open a fully-equipped medical school for women next October.

DR. CHAS. O'REILLY, of the Toronto General Hospital, sailed from New York for England, June 4th.

MORPHINE habitués may escape the consequent morning sickness by adding one-third grain of cocaine to the dose.

AT the University of Aberdeen, the General Council proposes to throw open every class to women, without restriction.

F. A. DAVIS, of Philadelphia, will publish the Annual of American Medical Sciences for 1890, within a short time.

DR. W. H. DALY is off for New Brunswick after the salmon. ℞. Picis liquidæ, ol. hedeomæ, āā q. s. M. S. For punkies.

THE Editorial Department of the July number of *The Dietetic Gazette* will be under the charge of Victor C. Vaughan, M.D., Professor of Physiology in the University of Michigan.

DR. J. P. COCHRAN, of Detroit, has been elected Supreme Medical Examiner of the R. C. Union of Knights of St. John.

THE Jefferson Medical College, of Philadelphia, has conferred the degree of LL. D. upon Dr. Robert Battey, of Rome, Ga.

THIN emphasizes the frequency of abdominal diseases in the tropics, by remarking that there disease strikes below the belt.

DYSENTERY is becoming seriously prevalent at Norristown. Dr. Cresson has been employed to analyze the drinking water.

DR. OUSELEY SMITH, of London, attempted suicide in Boston, because he failed to secure a supporting practice the first week.

THE *Alabama Age* tells us, the manganese mines mentioned in a recent issue are located in Calhoun county, Ala.; and not S. C.

THE General Medical Council (London) has objected to registering the diplomas of the University of Glasgow in Public Health.

The Board of Health is earning the gratitude of the neighborhood by compelling the removal of the piggeries at Wheat Sheaf Lane.

MODERN SCIENCE deals some pretty hard blows at ancient traditions. St. Bernard's Well has been pronounced unfit for drinking purposes.

THE Children's Hospital Dispensary, at the Mary J. Drexel Home, has treated 948 patients since opening, and only gave 225 prescriptions.

URSINUS COLLEGE has conferred the degree of Ph.D. upon Prof. J. M. Anders, M.D., of the Medico-Chirurgical College, of Philadelphia.

AFTER July 1, physicians desiring to practice in New Jersey must go to Trenton, pass an examination, and pay a fee of $15, before doing so.

THERE is a long list of doctors at Ocean Grove, but they are not the kind that interest us, being the doctors that preach but don't practice.

DR. E. B. O'REILLY is now acting as Medical Superintendent of the Toronto General Hospital during the absence of his brother in Europe.

MERCURIALS have advanced in price from three to eight cents per pound. A significant fact. We are on the verge of a new "calomel fad."

THE crew of the British steamship Gloucester City have suffered severely from dysentery, brought on by the use of the Delaware water for drinking.

DRS. L. WEBSTER FOX, A. Somers Bradford, of London, Theodore Fasset, and D. L. Benjamin, of Washington, are registered at Atlantic City.

THE article on The Dietetic Habits of Some Great Singers, by Chas. Avery Welles, in the June number of *The Dietetic Gazette*, is well worth reading.

THE Ptomaine produced by the bacillus of mice septicæmia is called methylquainidine. One-thirty-second of of a grain is sufficient to kill a rabbit.

DR. J. J. MOYLAN, of Philadelphia, has been staying at the Waverly, Atlantic City, and Dr. James Walton has taken a cottage there for the season.

ON the Hotel Kaaterskill register appear the names of Drs. Mason, of Troy; Barclay, of Newburgh; R. H. Johnson, of Germantown, and Skene, of Brooklyn.

THE "Country Home" for invalid children is this year to be a seaside home, at Point Pleasant, N. J. It is under the charge of the Sisters of All Saints, No. 2034 Cherry street.

DR. H. H. BIRNEY was married to the daughter of Dr. J. K. Boude, of Washington. Among the guests in attendance were Drs. White, Mead, Crows, Hollingsworth and Presbrey.

THE *Record* says that a virulent bull fever will commence to develope within the month; but we do not therefore advise physicians to grab their satchels and run for the Stock Exchange.

DR. C. H. FISHER, of the State Board of Health of Rhode Island, sails about July 22 for an extended trip through Austro-Hungary, Italy, Switzerland, France, Germany and Great Britain.

THE University of Florida was founded May 30, at Tarpon Springs. Among the incorporators are Hamilton Disston, Jacob S. Disston, A. P. Stafford, F. H. Davis and Dr. Charles E. Sajous.

"DR." A. F. Richter has been arrested for practising without registration. He claims to have graduated at the University of Bonn, Germany, but to have left his diploma in that country.

SUNSTROKE is beginning to figure in the mortality records. Five fatal cases were reported in St. Louis June 27, and nine on June 26, while twenty persons were prostrated in Chicago on June 27.

IN the *Alabama Med. and Surg. Age* for June appears an account of the birth of quadruplets; this remarkable occurrence happens about once in three hundred and seventy-five thousand births.

THE Royal Humane Society has awarded a medal to Dr. Bray, for jumping overboard and saving the life of a brother physician. The profession is probably not overcrowded on the African coast.

VISITORS at the Berlin Congress will find THE TIMES AND REGISTER on file in the reading-room, richly freighted with the news of each successive week, as it relates to the medical profession.

MISS MITCHELL, of Kingston, a graduate of Queen's University, who received a license to practice medicine a couple of months ago, is the first woman in Canada to write M.D. after her name.

DR. JOHN A. WYETH, of New York, has been visiting his parents and friends in Marshall county, Alabama. The doctor is a native of Alabama and has many warm friends in that part of the county.

LONG BRANCH enjoys her share of the doctors' patronage. On her hotel registers we find the names of Drs. T. H. Bailey, Caldwell, and J. A. Williams, of New York, and W. W. Moorhead of Philadelphia.

A NUMBER of young ladies, graduates of Vassar and Smith Colleges, have organized a college settlement in the slums of New York, where they are making an effort to civilize the wild children of the neighborhood. Bath-rooms, free medical advice, lessons in sewing, cooking, and kindergarten, are among their means of elevating the neighborhood. Dr. Caroline Hamilton has her offic in the building.

Six days of drudgery's heavy wheel she stands,
The seventh sweet morning folds her weary hands,
Yes, child of suffering, thou may'st well be sure
He who ordained the Sabbath loves the poor!—Holmes.

DR. RICHARD DOUGLAS, a prominent young physician of Nashville, has the assurance that he was the most popular physician in attendance at the American Medical Association; as the result, he received a fine surgical chair.

DR. MITCHELL, of Bayonne, is drawn to Lake George by the canoe meet; while Dr. Taylor, of the *Medical World*, searches the Maine woods for bear meat, though he would probably see more of it at Narragansett Pier.

A GOOD vintage is expected in the south of France, Burgundy, Algeria and Spain; while in Charente, Auvergne and Franche Comte the insects have done harm to the vines. Reports from the champagne country are favorable.

AN English Rector, who has been living among the Druses and won their confidences, states that from their knowledge of Freemasonry he believes this people to be descendants of the Phœnicians, who aided Solomon in building his temple.

LAST Saturday's European steamers carried with them Prof. A. P. Brubaker, and Drs. Carl Buttner, S. C. Gordon, J. Glazer, O. A. Judson, J. Price, J. Stewart, H. W. Schreiber, N. Senn, J. W. Williams, W. J. Younger, E. M. Coy, J. W. Johnson and J. W. Wilson.

THE *Medical Press* calls attention to the overcrowded condition of London cemeteries, where over a million and a quarter of bodies have been buried in less than three hundred acres of ground. Persons contemplating dying should make a note of this and avoid London.

THE London doctors are having a good deal of fun with Dr. Sherman, our whilom fellow-citizen who cures hernias. He has been arrested and fined for claiming the rank and title of a doctor in medicine. He now advertises as a "specialist for the treatment of rupture, though not a physician."

DR. WILLARD PARKER, not less eminent as a sanitarian than as a surgeon, was so impressed with the belief that the daily watering of the streets increased the foulness and insalubrity of the atmosphere, that he gave orders to arrest any one who should be seen sprinkling the street in front of his residence.

THE present movement to give a full three days' holiday when July 4 comes on a Friday is one which is to be heartily recommended. Let employers give their employés some privileges and they will work all the better for it. The old saying still holds good: "All work and no play makes Jack a dull boy."

MADAME SARAH BERNHARDT had a narrow escape from death in London, last week. She returned to the Savoy Hotel, where she is stopping, at an early hour from the theatre and retired. Finding it impossible to sleep, she determined to take chloral, but by accident took 120 grains, which was an overdose, and the disastrous effects were soon apparent. She appeared to be dying, and several physicians were immediately summoned and remedies were at once applied. It was four hours, however, before any marked improvement was perceptible in Madame Bernhardt's condition and she was pronounced out of danger.

A MEMBER of the English Parliament appears to have done something useful. He has invented a method of separating gold from the ore by means of electricity. The two great difficulties in the ordinary process, the deficient access of the gold to the mercury, and the action of other metals upon the latter, are both overcome.

JOSHUA LACY, a farmer near Birmingham, killed himself by falling with a pencil in his mouth, the point of the pencil penetrating his throat causing hemorrhage and blood poison. It is often a comparatively easy matter for a man to write himself to death with a pencil, and even an old goose quill with only one flange has downed many a promising statesman.—*Alabama Med. and Surg. Age.*

THERE have been many attempts at defining loneliness. Our Mr. McMullin is alone "apart from her he loves"; another is "lonely since his mother died"; "alone in crowds to wander on"; "lone and delighted, like a dried-up mullein-stalk in a sheep-pasture"; "mid pleasures and palaces lonely I roam;" etc., etc. But for an accentuated illustration of the malady we commend you to the doctor who isn't going to the Berlin Medical Congress.

IN an infusion of hay Dr. Kitassato has discovered a new microbe which produces a sensation of smell similar to that of musk. A culture of this germ is at first slightly red, later tile-colored. It thrives best on bread, rice, or potato, but may be cultivated in the ordinary way. The culture has holic tincture of the culture. There are therefore now known bacteria which produce colors, light, poisonous alkaloids, and, lastly, odor.—*Chemist and Druggist.*

THE CITY'S HEALTH.—During the week ending June 28 the interments reported in Phlladelphia were as follows:

Cholera infantum	93
Marasmus	42
Phthisis	39
Inflammation of stomach and bowels	31
Convulsions	25
Pneumonia	22
Bright's disease	21
Debility	17
Heart disease	17
Old age	17
Inanition	16
Inflammation of brain	15
Cancer	10
Congestion of the brain	10
Typhoid fever	10
Casualties	8
Bronchitis	8
Paralysis	7
Apoplexy	6
Hemorrhage	6
Suicide	6
Cholera morbus	5
Cyanosis	5
Diarrhœa	5
Peritonitis	5
Other causes	80
Total	526
Total for preceeding week	480
Corresponding week in 1890	493
Adults	220
Minors	306

IN a recent club meeting, the subject under discussion being "Charity," Dr. Mary Putnam Jacobi startled the society by asking: "Why, in this labor-protected country, in the absence of war, pestilence and famine, with work and land for every one for the doing and the asking, should there be so much

need of almsgiving? Would not a little more justice make much of our charity unnecessary?" When Dr. Jacobi is approached she offers a certain sum for the completion of a piece of work requiring immediate despatch. In the majority of cases the offer is declined.

One of the best ways of committing involuntary suicide is to make haste in hot weather. This is especially true for old or fat people. Hot weather is in itself a strain upon the system in civilized countries. In America, where almost every one is in a hurry, and in Chicago, where a person that is slow of movement excites comment and is regarded as a curiosity, no one seems to know that haste makes waste. In hot weather we should be as calm and philosophical and move as leisurely as possible. Eat slowly, and eat but little meat, drink no alcoholic fluids, don't get excited, and under no circumstances run for a train or a street car.—*Chicago Herald.*

At the meeting of the Trustees of the Philadelphia Polyclinic and College for Graduates in Medicine last week, an agreement was signed whereby the Nurses' Beneficial Association will furnish and perpetually endow a room for its members who become sick in the pursuit of their calling.

The Ladies' Aid Society's first payment towards the fund to perpetually endow a free bed for cripples was accepted. The Isaac B. Thorn memorial free bed was established by a perpetual endowment fund received from Mrs. Isaac B. Thorn.

Over $11,500, it was said, will be required to paint, plaster, and finish the new building in the fall, and efforts to raise that amount are being made.

The furniture for thirteen rooms has already been donated.

The *Cin. Med. Jour.* gives the following "Disease Catalogue of Syria:" The most prevalent affection met with in Syria is malaria, both inland and on the coast. Paludism, in an acute form, attacks infants as well as adults, complicated with dyspnœa and stimulating croup, though without objective throat symptoms. Sulphate of quinine is the remedy most in vogue, and is prophylactic against a second attack. Next to malaria, syphilis; and especially hereditary syphilis is frequent; also dysentery and diarrhœa. Alcohol, climate, and unwholesome food are responsible for the latter affections. Pulmonary emphysema is likewise in order, due to excessive smoking probably; and ophthalmia, liver disease, calculi and leprosy liberally contribute to complete the Syrian destructive bill of fare.

To Contributors and Correspondents.

All articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from June 15, 1890, to June 28, 1890.

Appointments in the Medical Department, U. S. Army.—To be Ass stant Surgeons, with the rank of First Lieutenant: Frank R. Keefer, of Pennsylvania, June 6, 1890, *vice* Woodruff, promoted; Thomas U. Raymond, of Indiana, June 6, 1890, *vice* Newton resigned; Henry D. Snyder, of Pennsylvania, June 6, 1890, *vice* Wilson, resigned; Allen M. Smith, of New York, June 6, 1890, *vice* Matthews, promoted; Ashton B. Heyl, of Pennsylvania, June 6, 1890, *vice* Hall, promoted; Joseph T. Clarke, of New York, June 6, 1890, *vice* Porter, resigned.

By direction of the Acting Secretary of War, Major George M. Sternberg, Surgeon, will, in addition to his present duties, perform the duties of the post-surgeon at Fort McHenry, Maryland, during the absence of that officer on leave.

Leave of absence for one month, to take effect the 15th instant, is granted Captain L. W. Crampton, Assistant-Surgeon. Par. 5, S. O. 75, Department of the Missouri, St. Louis, Mo., June 9, 1890.

By direction of the Acting Secretary of War, Captain John De B. W. Gardner, Assistant-Surgeon, having been found incapacitated for active service by an Army Retiring Board, will proceed to his home. Par. 12, S. O. 135, A. G. O., Washington, June 10, 1890.

Leave of absence for one month, to take effect on or about June 15, 1890, is granted Captain Aaron H. Appel, Assistant-Surgeon, Fort D. A. Russell, Wyo., with permission to apply, through Headquarters, Division of the Missouri, for an extension of one month. Par. 4, S. O. 42, Headquarters, Department of the Platte, Omaha, Neb., June 10, 1890.

Leave of absence for one month, on surgeon's certificate of disability, is hereby granted Captain Marcus E. Taylor, Assistant-Surgeon, with permission to go beyond the limits of this division, and to apply for an extension of five months. Par. 1, S. O. 45, Division of the Pacific, San Francisco, Cal., June 13, 1890.

By direction of the Secretary of War, leave of absence for six months, to take effect when, in the opinion of his department commander, his services can be spared, is granted Captain William O. Owen, Jr., Assistant Surgeon. S. O. 139, par. 12, A. G. O., June 14, 1890.

By direction of the Secretary of War, First Lieutenant Eugene F. Swift, Assistant-Surgeon, is relieved from duty at Fort Spokane, Washington, and will report in person to the commanding officer, Fort McDowell, Arizona, for duty at that station, relieving Captain Marlborough C. Wyeth, Assistant-Surgeon, who, on being thus relieved, will proceed to Fort McIntosh, Texas, and report in person to the commanding officer thereof for duty at that station. The officers named will also report by letter, upon their arrival at their new stations, to their respective department commanders. Par. 10, S. O. 140, A. G. O., June 16, 1890.

By direction of the Secretary of War, leave of absence for two months, to take effect July 1, 1890, is granted Captain Charles B. Byrne, Assistant-Surgeon. Par. 13, S. O. 141, Headquarters of the Army, A. G. O., June 17, 1890.

By direction of the Secretary of War, leave of absence for four months, to take effect upon the final abandonment of Fort Maginnis, Mont., is granted Captain William W. Gray, Assistant-Surgeon. Par. 14, S. O. 141, Headquarters of the Army, A. G. O., June 17, 1890.

Culbertson, Howard, Captain (Retired.) Died June 18, 1890, at Zanesville, Ohio.

By direction of the Secretary of War, Major Samuel M. Horton, Surgeon, will visit the encampment of the Maine Volunteer Militia, at Augusta, Maine, during the period of encampment, June 30 to July 4, 1890, inclusive, for the purpose of instructing the medical department thereof in its duties in camp, and, on completion of this duty, will return to his proper station. S. O. 143, par. 5, A. G. O., Washington, D. C., June 19, 1890.

By direction of the Secretary of War, Major Charles R. Greenleaf, Surgeon, will attend the encampment of the Pennsylvania National Guard at Mount Gretna, Pennsylvania, from the 18th to the 26th of July, 1890, for the purpose of accompanying the Surgeon-General of Pennsylvania in his inspection of the camp. Par. 11, S. O. 144, A. G. O., June 20, 1890.

By direction of the Secretary of War, leave of absence for three months and fifteen days, to take effect as soon as his services can be spared, is granted Captain William C. Borden, Assistant-Surgeon. Par. 11, S. O. 146, A. G. O., June 23, 1890.

Medical Index.

A weekly list of the more important and practical articles appearing in the contemporary foreign and domestic medical journals.

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De la déchirure centrale du periner, Boissard. La France Med.
Diabete sucre, une jeune fille de dix aies, Galliard. *Ibid.*
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The Times and Register.

Vol. XXI, No. 2. NEW YORK AND PHILADELPHIA, JULY 12, 1890. Whole No. 618.

PAGE

CLINICAL LECTURE.

TUBERCULOSIS. By Ernest Laplace, M.D. - 25

ORIGINAL ARTICLES.

A FURTHER STUDY OF HERNIA. By A. W. Ridenour, Massillon, Ohio - - - - - - 26

CLINICAL CONSIDERATIONS CONCERNING ANÆMIA IN YOUNG WOMEN, INCLUDING ITS TREATMENT. By Andrew F. Currier, M.D., New York City - - - - - - 30

SOCIETY NOTES.

ALLEGHENY COUNTY MEDICAL SOCIETY - - 34
Case of Suspected Volvulus. *Batten* - - 34
Case of Puerperal Convulsions. *Duff* - - 34
Three Cases of Fatal Pericarditis—With Autopsies in Two. *Lange* - - - - - - 35

THE POLYCLINIC.

PHILADELPHIA HOSPITAL:
Ulceration—Skin-grafting. *Laplace* - - 36
Circumcision. *Laplace* - - - - - - - - 37
Pyæmic Abscesses. *Davis* - - - - - - 37
Puerperal Diphtheria. *Davis* - - - - - 37

PAGE

Cephalo-Hæmatoma. *Davis* - - - - - - 38
Vitality of Childhood. *Davis* - - - - - 38
Pyæmic Infection. *Davis* - - - - - - 38
Nursing-bottle. *Davis* - - - - - - - - 38
Parotitis. *Davis* - - - - - - - - - - 38
Sapræmia. *Davis* - - - - - - - - - - 38

EDITORIALS.

CALIFORNIA SANITARIA - - - - - - - - 39

ANNOTATIONS.

Apoplexy - - - - - - - - - - - - - - 40
Longevity - - - - - - - - - - - - - - 40

LETTERS TO THE EDITOR.

Letter from Dr. Garretson - - - - - - - 40
Injury to Noses. *Saunders* - - - - - - - 41
Ocean City. *Robins* - - - - - - - - - 41
Correction. *Davis* - - - - - - - - - - 41
Query - - - - - - - - - - - - - - - 41

PARIS LETTER. *Linn* - - - - - - - - 41
The Action of Testicular Liquids. *Brown-Séquard* - - - - - - - - - - - - - 41

PAGE

Accidents from Chloroform. *Laborde* - - 42
Vaccination from Goats. *Hervieux* - - - 43
Therapeutic Problems. *Huchard* - - - 43
Resemblance Between Fatigue and Hysteria. *Féré* - - - - - - - - - - - - 43
Treatment of Anasarca by Theobromine. *Sée* - - - - - - - - - - - - - - 43

BOOK REVIEWS.

Neuralgia. *Hurd* - - - - - - - - - - - 44
Mineral Springs and Health Resorts of California. *Anderson* - - - - - - - - - 44

PAMPHLETS - - - - - - - - - - - - 44

THE MEDICAL DIGEST.

Fissured Nipples - - - - - - - - - - - 44
Causes of Insomnia. *Folsom* - - - - - - 44
Amateur Doctoring. *Hospital Gazette* - - 44
Hints to the Unfortunate. *Hospital Gazette*, 44

MEDICAL NEWS AND MISCELLANY, 45

ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - - - 47

MEDICAL INDEX - - - - - - - - - - 48

NOTES AND ITEMS - - - - - - iv, xiv

Clinical Lecture.

TUBERCULOSIS.[1]

BY ERNEST LAPLACE, M.D.,

Professor of Pathology and Clinical Surgery in the Medico-Chirurgical College; Visiting Surgeon to Philadelphia Hospital, etc.

ONE of the most remarkable signs of advancement in medicine has been the tendency of finding the same cause as the starting-point of various affections, and hence of greatly simplifying the proper knowledge of the case. What we formerly knew as scrofulosis, coxalgia, white swelling, lupus, tubercular meningitis, etc., are now all classed under one head—namely, tuberculosis. Last, but not least, fistula in ano may be tuberculous.

Germs were found to be living bodies belonging to the vegetable world, and grow just as seeds do. A grain of corn falling on good ground produces fruit of its kind; but falling in unsuitable soil produces nothing. So with germs. They must find a suitable soil in which to grow or they do not reproduce themselves.

The old lady who is now before us has lived to a good old age, and has been protected from germs by her robust constitution; but, through hardships and exposure, vitality has diminished, and now she affords a good soil for the germs which she once resisted. This is a case of acquired scrofulosis. Every day we breathe the germs of tuberculosis, and the reason we are proof against them is that our lungs are not then a suitable soil for their development. What, then, is scrofulosis, bot hin the child and in this case?

These germs invade the economy and lodge in the places most suited for their development, and produce an irritation. The lymph glands are the most favorite seat of the trouble. Germs nestle in the gland, develop among the cells, cause an irritation, proliferation, and death of the cells. A cheesy or fatty degeneration takes place, and we have the first step in the pathological process. The process continues, and we have a tubercular abscess formed, which will, in time, open itself at the point of least resistance, just as was the case in this old lady.

When the process goes on beyond hypertrophy, you have this fatty degeneration becoming purulent, when it must be opened or allowed to open itself. When you do not interfere with these glands they suppurate; but when they are taken out with aseptic precautions the condition is removed, and union by first intention may be obtained. This lady is so old, and has so many suppurating glands, that we will not operate. All that can be done in this case is to stimulate her, improve her strength, and open the abscesses.

When a patient can stand it, these glands should be removed, for the longer they are allowed to remain the greater will be the chances of a general infection of the lungs, and the risk of miliary tuberculosis.

I next bring before you this robust looking man, whose cervical glands all along the deep jugular vein of the left side are enlarged. There is a long string of glands, and great care must be exercised in their removal. An incision is made along the anterior border of the sterno-mastoid muscle, and the glands are exposed.

This case has already waited too long and the glands have begun to suppurate. The glands are usually attached loosely to the cellular tissue, unless there has been previous inflammation, and it is better to remove them by the fingers than by dissection. Gentle compression will check all hemorrhage; but we should use the hemostatic forceps when necessary. Strict antiseptic measures will be observed, and I will

[1] Delivered, April 12, 1890, at the Philadelphia Hospital. Reported by W. B. Stewart, M.D.

recommend that a 10 per cent. solution of iodoform and ether be applied to every part of the wound. In this way the iodoform penetrates every nook and corner. The body heat causes the iodine to be liberated, and this kills the germs. This should be done in every case.

Simply sew the wound up with a deep suture, to hold all the parts together, and a continuous suture on the surface to cause perfect union. A continuous suture expedites matters. Place a small drainage-tube in the wound. Dress antiseptically, with a dry iodoform dressing. The deep suture will relieve all strain on the superficial sutures, and no scar will remain.

COXALGIA.

This little child has the very same affection as our last two cases, although different in appearance. These germs of tuberculosis, instead of invading the lymphatic glands of the neck, have invaded the hip-joint, and developed the disease known as coxalgia. These very same germs developed in the cartilage and ligaments around the head of the femur, caused vegetations, irritation, and destruction of the white corpuscles, that come there by diapedesis. A large, disintegrated mass is formed, which will find an exit in time.

It has been a mooted question just when to interfere with tuberculosis of the hip-joint. The indication is to operate just as soon as fluctuation can be detected. When pus is present it is best to remove it. In this case we can tell this much—we will find disease vegetations and the so-called "pyogenic membrane."

A point to be remembered is this: The presence of pus is the result of a pathological condition; for pus may be produced in the hip-joint just as in any other part of the body, as the bone is freely supplied with blood-vessels. This case belongs to a class of operations that are not brilliant, for we cannot restore the diseased joint to its natural physiological condition. We can remove the local trouble but not the diathesis. The present operation may result in a tubercular focus starting in another part of the body. An incision is made over the right hip-joint, and a free flow of pus results. Mucoid degeneration of tuberculous tissue and vegetations are all scraped away with the curette. As much of the dead bone is removed as is deemed necessary.

The focus of the disease having been removed, it is hoped that the remaining carious bone will be restored to a healthy condition; and we will trust to nature to heal the wound with healthy granulations.

Original Articles.

A FURTHER STUDY OF HERNIA.[1]

By A. W. RIDENOUR,
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THE study of hernia is one of the most interesting, one of the most important, and one of the most frequent of all the subjects the medical man has to contemplate. This is rendered so by the great number of cases existing, and the great amount of suffering endured by those so afflicted. I trust, therefore, that I need hardly apologize for again bringing it before you. It would hardly become me to tell you that I will instruct you in this paper; but my experience since last appearing before your body with a paper on this subject has been instructive to me, and I always deem it the duty of medical men to give their brethren the benefit of their experience, be it for weal or woe.

An earnest, thoughtful study of this subject is necessary "ere we can hope to arrive at a satisfactory conclusion as to the best permanent relief combined with absolute safety." This is and should be the ultimate aim of our endeavors.

We cannot hope to accomplish this in a day, nor by rash attempts, without a thorough understanding of our subject in all its bearings. A thorough knowledge of the case, a thorough knowledge of the procedure necessary to effect permanent relief, must be prerequisites. Downright earnest work is as essential to success in this as in everything else.

We shall devote a brief time to the discussion of the symptomatology and diagnosis of the various forms of hernia, including in this description some conditions that modify and change the character of a hernia after it has passed the inner barrier. We will next discuss the mechanical treatment, including under this head the prognosis as applied to those changes that occur during the progress of a hernial protrusion. The consideration of treatment other than mechanical will be then noted, giving a synopsis of the modifications adopted by different operators.

In discussing symptoms of hernia, it will be necessary to bear in mind the various forms of hernial protrusion, as the simple, oblique, inguinal, femoral, umbilical, etc. A tumor is usually noticed on inspection, although in rare instances a small knuckle of bowel may be present in the canal (having passed the internal ring), and may even be strangulated and no tumor be found. The tumor will have an elastic or doughy feel, as there is present fluid in sac or not; will feel dense and inelastic, not doughy, if omentum be present alone. Where slight strangulation exists, in addition to pain and digestive disturbance, the parts, as skin and connective tissue, will show evidence of slight inflammatory action. The parts will be more sensitive; skin with a slight blush; the tumor will feel more tense, more elastic, *more immovable.* Slight anxiety will be shown on countenance of patient.

The location of the tumor will guide you somewhat as to the variety of hernia, although a femoral hernia may be mistaken for an enlargement of one of the femoral glands; but, in general, the greater density of a glandular enlargement, combined with the entire absence of all digestive disturbance, will serve to distinguish, especially as the density, if a hernial protrusion, would be indicative of slight strangulation, and there would be added an elastic, tense feel to the tumor, besides the *immobility*. The size, if omentum, as it may closely assimilate a tumor, would also serve to distinguish, as an omental tumor is rarely so small as an enlarged gland.

Too much stress should not be placed on the reducibility of a hernial tumor as a distinguishing feature, as many hernias are not reducible. The symptoms and diagnosis of a severe case of strangulation are so plain they need not be repeated here; but the slighter forms—and I include in this category all those where *pressure* is a feature, either by a truss or an irreducible sac, or thickness and organization of sac itself causing slight congestion or severe of bowel, or irreduction of bowel, with constant pain and the usual resulting digestive disturbance—demands attention, and will be considered shortly.

The mechanical treatment of hernia dates back to the earliest trace of man. In the caves of prehistoric

[1] Read before the Ohio State Medical Society, June 6, 1890.

man there has been found the remains of a truss : the supposition was that it was made in the Iron Age, as that metal evidently entered into its composition. A further slight evidence that the wearer was a laboring man was that the portion passing around the body was somewhat rusted. The remains of this truss were fished from beneath the débris of defunct bacterial skeletons. I merely mention the longevity of this truss to impress on your minds its early use.

Where a hernial protrusion is threatened—as indicated by pain in this region on exercise, with maybe a slight impulse on coughing—a truss, well-fitting, but not to exercise an irritative pressure, and applied over the cotton-gauze, silk, or flannel undershirt, should be at once applied and worn day and night. A duplicate should be worn when bathing.

When the hernia is recent, and presents itself as a simple hernial tumor, readily reducible, with rings or openings not too relaxed or large, and the muscular system not relaxed, a truss will be applicable, as above.

In children, in recent cases, it is advisable to apply a truss. While the kind of truss recommended is important, yet there are so many kinds, all having the same object in view—viz., the retention of the bowel—that it is only necessary to say, when the hernia is of such a character that one well-fitting truss fails, you will find all will fail.

The character of a rupture (with complications) is to be considered as the important element in affecting the final prognosis, and treatment other than mechanical, or with the combination of the mechanical and operative. It is unfortunate that all cases presented to your notice are not recent; hence, do not present the simple forms we have glanced over.

A rupture may be old ; the sac and pillars, canals, and rings may have undergone changes that you find necessary to recognize, and which will determine your line of treatment. In recent cases the sac is merely a prolongation of peritoneum ; but, sooner or later, it becomes thickened, organized, loses its smooth, shining structure internally and externally, and forms dangerous adhesions, both external and sometimes to lumen of bowel; becomes irreducible—a fixture. The bowel soon recognizes the difference between returning surrounded with the smooth surface of sac and the condition about to be described. When the sac becomes irreducible, the bowel begins to create slight friction in its passage over it, and this friction begets congestion, with diminution of the secretion ; soon followed by thickening of the sac, organization, especially at the internal opening; the bowel finds greater difficulty in returning, and soon you have a mild case of strangulation from pressure by the sac. This condition is not always coincident with irreducible bowel ; but is invariably associated with *pain, severe, aggravated at each attempt to wear any kind of a truss.* The patient is a constant sufferer from indigestion, obstinate constipation, becomes nervous, and is a good subject for suicidal mania.

To advise a patient to wear a truss under such circumstances is pernicious, and entitles the one so advising to the suspicion of ignorance at least. Many of these patients persist in the attempt to wear a truss without medical advice, or resort to the truss-makers, who affect to be able to cure them by means of their special contrivance. Ignorance is now associated with egotistical pecuniary greed, and the patient goes from one to the other, constantly growing worse, and, finally, one of three things takes place : either the bowel becomes in fact severely strangulated, or the attempt to wear a truss is abandoned, the bowel becoming irreducible, a fixture out, and the patient lives a miserable existence, with his whole energies, mind, and body concentrated on his rupture, to the utter exclusion of all business, all work ; becoming, in fact, a dependant, living a mere existence ; or, the surgeon or experienced medical man is finally consulted, who diagnoses, first, an irreducible sac; second, the conditions which naturally follow. It may be a matter, therefore, of the utmost importance to diagnose this condition, with a view to your intelligent prognosis and recommendation for proper treatment.

An adherent sac may be diagnosed. Replace the bowel ; when, if the sac does not return, you will still be able to feel the membrane, the walls of which will glide readily over each other distinguishably between the fingers, besides being, in recent cases, even slightly thicker than the parts feel when entirely free from sac. Another diagnostic symptom is the slight prominence yet remaining of the parts after bowel has been replaced ; and still another : persistence of pain in handling the parts.

I have thus referred to the *irreducible sac* and the conditions which follow invariably ; there is no compromise, unfortunately. The pillars undergo changes in old cases of rupture ; they become atrophied. This atrophy is gradual ; but, nevertheless, certain, and, by involving all the muscles entering into the formation of the walls of the canal or opening, will facilitate the persistence and growth of a hernial tumor to prodigious size, and is due not so much to the hernial pressure direct as by the interference of circulation, both arterial and nervous, from an ill-advised truss. This atrophy will clearly modify your treatment also, as will, later on, be discussed.

The canal, in old cases, becomes materially shortened, but its width is increased in proportion. The length from internal to external opening may be only the mere fraction of an inch, but it may be one, two, or more inches wide. The rings become relaxed, dilated from a fraction of an inch to two or three inches, and become by atrophy a mere thread.

In a femoral hernia, the anatomy of the parts being somewhat different, there is not so perceptible a difference in the outlines of the external opening, owing to the more inelasticity of Poupart's and Gimbernat's ligaments. The pillars are here also more tendinous in structure, and will modify your treatment, as we will endeavor to show in the proper place. You will not notice so perceptible an atrophy of the structures entering into the formation of a femoral hernia, and hence your tumor will not grow to the large proportions found in inguinal. The sac will, however, undergo the same changes.

In umbilical hernia, the condition of the muscles and musculo-tendinous structure, entering into the formation of the walls of the opening, will allow of the largest sized protrusion of bowel or omentum, or both.

Before we pass to the proper treatment of hernia other than merely mechanical, it may be considered important to consider the contents of the sac ; as, while it will not affect the outcome, it will affect or modify the treatment. The sac may contain bowel alone. It may contain omentum alone. It may contain both. When bowel alone is found, the case is clear. When omentum alone, active or severe strangulation probably never takes place ; but an irreducible omental hernia is the rule, with scarcely an exception. The omentum does not wait for the sac to become first adherent, but adhesion between the meshes of omentum occurs on short stay beyond the

limits of the internal ring, and the mass must either return *en masse* or remain out, which it generally does. The truss business works well here in creating disorder.

The combination of bowel and omentum is an unfortunate one. Active strangulation of the bowel will soon follow, with irreduction of either, and care is needed in your operative procedure to not lose sight of the bowel feature; in fact, this complication exists so often that bowel should always be searched for in every case of omental hernia.

The prognosis of simple recent hernia, when seen at once or early, say within a month, in children or adults, or between the ages of birth and fifty-five years, is good in so far as death is concerned, provided a truss is worn constantly, or, at all events, when the patient is in the upright position, and continued through natural life. Can we hope for a relief in these cases with the truss? Yes, for a while; but the child who has a rupture, and after treatment with a truss for two, or may be four, years is considered cured, will, when arriving at adult, or may be middle, age, have a return, may be sooner; this applies also to the adult when reaching old age.

The prognosis in old cases, or those not attended to properly where changes have taken place in the sac, or the hernia is large, scrotal, irreducible, painful, or when truss will not readily retain sac, bowel and omentum, or in the condition I have dwelt upon above, is bad, very bad, and these are the cases that demand something more than the truss treatment. A combination of operative with mechanical means. It may seem strange that this combination should be recommended. Why not depend on the results of the operative alone. Now, while not in the least detracting from the purely operative, it is necessary to show cause sufficient why a combination is better, in some cases, at least, but certainly not imperative in all; but in the old, always; in middle life, where the patient is a laborer, or of active habits; in the young adult for the same reason; in childhood, after the tenth year, for the same reason, it is imperative. In women, whose habits are not so active, the combination may be omitted, as the closure of opening is usually better done, owing to the necessity of allowing no pressure on the cord or vessels in the male. I usually, however, advise the combination in the female. You will remember, I noticed the atrophy of the pillars in cases of long standing, that is, in those not classed under the head of recent. Now, union between opposing atrophied pillars, and between atrophied muscular walls of the hernial opening, is certainly not so firm as it would be between muscles of full tonicity, and it makes no difference whether you interpose granulative tissue, or unite skin to pillar, that union is not, and cannot be, firm under this condition; and, hence, will sooner or later give way. I will not apologize for admitting that experience has made it necessary to depart from the purely operative in these cases under consideration, and classed as above. You will remember that in my former paper stress was laid on the purely operative, except in very old people. I now, for the above sufficient reason, advocate, or rather practice, the combination plan.

In discussing the operative procedure as a vital part of the combination plan of treatment, we will premise all the usual description of the scrub brush, by saying, use thorough cleanliness and strict antisepsis in performing the work and conducting the after-treatment.

The incision varies in length from two to four inches; the dissection is carried down to the sac, which is opened carefully, exposing the contents. If bowel is present alone, it should be returned, unless in case of gravest form of strangulation, of long and dangerous continuance, when, if after exposing more of it than is included in the strangulation (after enlarging the seat of stricture) to the influence of hot cloths, the vitality does not return in the least, it should be resected; but as this will, in all probability, result in the death of the patient, it should certainly be a *dernier ressort*. It is astonishing the vitality of the bowel under such circumstances, but there is a limit, and subsequent ulcerative enteritis, with perforation and death, is to be taken into account. It has been my misfortune to lose one such case, as result of delayed operation from mistaken diagnosis on the part of the attending physician. Should the contents prove to be omentum alone, it should be ligated first internal to internal ring, or, after pulling down, to healthy omentum; the stump returned after all bleeding has ceased. Where purely omentum and close adhesions have formed to sac, I do not hesitate to treat the sac and omentum as one, but should bowel and omentum both be present, expose the bowel in all cases, replacing it, then treat the omentum as above.

Having emptied the sac, what shall be done with it? The necessity for this question seems to arise from the diverse ways in which it is treated, for instance: It has been reduced bodily within the abdominal cavity. It has been left in the canal, where firm adhesions prevent its return. It has been ligatured, the hernial investment amputated, and stump returned. It has been ligatured, amputated, and then invaginated in the canal.

It has been drawn up upon itself, fixed as a bulwark against the internal ring. It has been twisted upon itself and left in the canal. It has been interwoven into the fibrous structures of the pillars.

Riedel ties the sac as high up as possible, leaving the ligatured portion below to help fill the distended canal.

Nusbaum, Sewel, and Czerny, tie the sac high up, and remove all below the ligature. Mitchell Banks favors the latter method. Ball twists the sac and leaves it in the canal. Bryant interweaves it in the pillars. We pause now and decide which of these different methods is the best. You all agree to do something.

Should the sac be forced from all its adhesions and ligatured high up, you will agree that the portion below the ligature will slough out soon. You will all agree that if you twist the sac sufficient to have it remain so, it will die and slough off. You will all agree that if you interweave the sac between the pillars sufficient to have it remain there, and any attempt made to close the wound it will slough off. You will probably agree that it will slough anyhow after interweaving, whether the wound is closed or not. You will agree that if you draw it upon itself and fix it as a bulwark against the ring, it will slough off.

It is favoring the rapid return of the hernia, to replace it bodily within the cavity. It is favoring the rapid return of the hernia to allow it to remain intact.

Then the alternative is left of cutting it off and thus doing away with it altogether. Now, we have the most sensible solution of the treatment of the sac—banish it. We will then loosen all adhesions, draw it down until you get up to healthy peritoneum if possible; suture it carefully at this point, cut it off immediately below, ligate any bleeding joints, or twist the bleeding vessel; then allow the sutured end

to glide within the opening ; it is always preferable to use sterilized cat-gut for this suture, on account of its ready absorption. It may happen that from the density, thickness and intimate interblending, it is impossible to go up so far as to reach healthy peritoneum, you will then go as high as possible. I will illustrate this impossibility by this specimen of sac I now show you. You notice that at the point of amputation, the sac, or rather neck of same, is fully one-quarter inch thick ; it was so firmly adherent as to be impossible of moving, hence I was forced to cut it off, after suturing as described. This specimen was obtained from a gentleman, aged sixty-eight, who suffered for years from an irreducible sac ; latterly, finding life a burden, and not being able to wear a truss any more, for obvious reasons, connected with the sac I have above shown, consulted me with this result ; here is the sac, and the patient, now a happy man, with good appetite, works on his farm every day, and wears a truss as a precautionary measure. You will notice a small sac lying in the bottom of the bottle, this was obtained from a young lady with marriage in view, who told me "She did not want her man to marry a cripple." She is now well, happy and wears a truss, although it was not necessary to wear one in her case, as the rupture was small and the pillars firm ; openings closed firmly and readily. Before the operation she wore a truss with difficulty ; pained her, and bowel persisted in escaping to side of truss.

Having disposed of the sac, we will examine the canal and pillars. It is better to remove all superfluous aneolar tissue in the canal ; in fact, I do not hesitate to remove the sides and roof of tunica vaginalis, even the sheathes of the pillar muscles ; removing with curved scissors the membranous rings, cremaster muscles ; bringing thus bare freshened pillar wall to bare pillar wall ; a little time spent here in thoroughly doing your freshening and cleaning the canal and muscles is well spent ; and avoid injuring the cord and accompanying vessels in the male and the round ligaments in the female, or the larger vessels of a femoral hernia ; if in the latter, do not waste your time freshening Poupart's or Gimbernat's ligament, as they will not unite, neither will the cordy, tendinous structures immediately above them.

The next step in the operation is closing the wound. I am aware that a decided difference of opinion exists in this. There are those who attach the utmost importance to the open, or, at least, partially opened method. They allege that by suturing the integument to the pillars on each side, and allowing the bottom of the wound to heal by granulation, the result will be better, that the hernia will be less liable to return. This is, as yet, a matter of opinion, as the method has not had the inexorable test of time and circumstances, hence, no positive opinion should be predicated on assumptive evidence ; allbeit, success seems assured. There are objections to the open method that will bear discussion. The first is as to the firmness and permanence of granulation tissue. In general, granulation tissue is extremely liable to accidents and disease. How often do old wounds of soldiers and others, that have healed by granulation, open out again ?

How many of you have not seen cases of erysipelas causing wounds to re-open after months of apparent security ?

Granulation tissue is tender, the experience of the old soldier with granulated stump attests this fact. No artificial limb can be borne. Should a rupture recur a truss could not well be worn, the condition of the patient then becomes pitiable. Wounds that heal by granulation heal slowly. There is a vast difference between direct union between the pillars and the interposition of treacherous granulation tissue, in addition to the absence of the more tender integument.

The cicatrix resulting from direct union is not tender, is much firmer, and a truss can only be borne without pain or inconvenience when direct union is obtained. In additon, the impression made on patient and friends is different in the open method. You have a ghastly, unsightly wound staring them in the face for weeks, which will scare friends from undergoing the operation. In the direct union you will find patient and friends cheerful. It is not a fact that in direct union the danger of septic poisoning is greater. Sirs, the directly opposite is the truth, the whole truth, and nothing but the truth. The wound heals at once, and there is no chance for septic poisoning.

You have thoroughly cleansed the bottom of the wound, brought the pillars into exact apposition, placed strands of catgut over the pillars, allowing them to protrude at lower end of wound. Catgut is one of the very best materials for suturing the sac and pillars, better than silk even ; it will hold sufficiently long for union to take place, and there is avoided that danger from non-absorption. And above all else avoid trying to form a new canal for the cord and vessels, as advocated by an Italian surgeon. Italy is reponsible for many innovations, this is one of the newest and one of the most treacherous of her exports. Place your sutures at intervals of half an inch and commence at upper end of your incision, ending at lower, and you will not regret prefering direct union to unsafe granulation tissue.

In femoral hernia, use deep and superfical sutures in one, to cause the integument to unite to the parts, beneath. An early operation in umbilical hernia is advisable for obvious reasons. An acute strangulated rupture should be operated on at once, and right here let me interject a word regarding that miserable subterfuge—taxis. Suppose you should finally succeed in reducing the bowel, you are only prolonging his agony ; operative relief must come sooner or later, and the sooner the better for that patient's health and happiness.

The question now arises, Will we let the patient go about his business without any precautionary support ? In children, a support may be unnecessary, but in the adult, if a laborer, or one who is active on his feet ; or in the aged ; or in cases of long standing, where the pillars and muscles are atrophied, it will be necessary.

The union between atrophied muscular tissue is easily torn. The support may be a band around lower portion of abdomen, but a light truss is, perhaps, better, worn in day-time along with only light pressure, merely sufficient to keep the bowel from infringing on the internal surface of the cicatrix, or slight depression necessarily existing on the inner surface of the sutured sac ; no amount of care in suturing the sac will entirely prevent this depression, any one to the contrary notwithstanding ; hence, it is better to efface the depression by a little gentle pressure from the outside. A light truss thus worn as a precautionary measure, will not cause absorption of the union between pillars or the cicatrix, if the latter is not granulation tissue, and not, hence, covered by normal integument ; always, therefore, endeavor to save the integument ; cause it to unite in the median line ; this cicatrix is firm, and no truss will affect it in the least, neither will the truss increase the weak-

ness between the union of atrophied pillars, but when the pressure is light will actually strengthen them. I am fully aware of the opposite grounds maintained by some in this, but am prepared to bring the test of time in support of my position. I have operated sixty times for the relief of hernia; twenty-five times when severe strangulation existed; ten times when slight strangulation existed, and twenty-five times where no strangulation either by sac or rings existed. A few of the latter annoyed the subject simply from the difficulty in retaining the bowel with truss, and in a few instances, where bowel and omentum were present, but an early operation prevented any strangulation of bowel.

In three cases death resulted; two of them in operation for severe strangulation; one of these should have been operated at least three days before—I referred to it above; the other one was suffering from acute gastritis at time of the severe strangulation, an operation made at any time prior to this would have saved his life. The third case of death was for slight strangulation, caused by the sac; patient had local peritonitis and general ascites. The local peritonitis aggravated, if not caused, by persistence in the truss attempt; patient could scarcely walk; was very obese; weighed two hundred and sixty pounds; lady forty-five years; died on the seventh day from general peritonitis.

Fifty seven recovered. In none of these fifty-seven did any serious symptoms arise. Fever was an exceptional symptom; the majority had none at all; none had any severe pain; the wound healed in from one week to two in all; all were up during the third week.

Ten of these cases were double operations (both sides at one operation); fully one-half of the patients were females. I find in running up my results that I need not feel my labor has been in vain. My first operation for strangulated hernia was made in 1871; only slight attempt at closure was made in this instance, and the sac was replaced without ligation after being opened, and the bowel replaced. My sutures were passed to include the pillars, and skin tied externally. After one year, rupture returned, (patient was a hard-working man). I advised a truss, which he wore for the next ten years. Recently, this patient tells me, he does not need a truss any more, as the bowel does not return, but I told him to wear a light one, or band, while at work. Since then, my attempts have more and more assumed elaboration, with a view to better secure permanent relief, but I am still pleased with my first attempt. I have lately examined fifteen, whose operations date back five years, and of these I find eight are still sound, and have worn no support of any kind; all active working people, men and women; two of them past sixty. I have recommended all of them to wear a light support in future. Seven are failures in that a rupture has returned, and these seven wear trusses, and claim no discomfort, and can do hard work with no trouble whatever from the truss. None of these seven would have had a return had a light truss been recommended at once.

In nine examinations, after nine years have elapsed since the operation, four are still sound, with no rupture, not even an impulse or coughing; five have had a return of the rupture, they wear trusses which readily retain the bowel, and suffer no inconvenience. In two that I examined after ten years have elapsed since operation, one has a rupture easily retained with a truss; the other has no tumor, but an impulse simply claims the rupture was out, but that since wearing a truss does not show any more. All the cases are in an infinitely better condition than before operation. Then life was a burden—now a real pleasure. As one man said to me not long ago, "I would not take $20,000 and go back where I was before you operated on me." I have been told similar words many times by these patients.

Some ten years ago I attempted the Heitonian method of injecting the sac. I met with five failures in five cases, and have operated on all five since by the knife route. You will notice in the sac I exhibit to you, an ecchymosis well marked at the upper portion of the neck, this is sufficiently explanatory of the condition calling for an operation in this case. That condition must pain continuous and severe, with all the resulting changes in the general system which existed.

A word as to the silver wire suture. I have not enumerated it in the list of sutures in this paper, but you will remember I did in my former. I have dropped it altogether. As a buried suture it is a failure. Trouble is afterwards found in many cases—over half—in getting it out, to stop the constant discharge and irritation set up by it. As a superficial suture it is a failure. It is no evidence of weakness, I hope, when I tell you that I was led to use it by no less an authority than the writer of the paper recently read before a certain State Society, on Buried Animal Suture. I was happy in the use of the buried animal suture before I met him, or long before his paper, and am happy to find myself using it since.

Gentlemen, I have been at slight variance with the views I formerly entertained, in two or three particulars; but in the main, my views have not changed since my first operation. And I am just as earnest now as then. My experience has taught me to know that the right road is found, although there may be bad places in it, yet perseverance will enable you to reach the end.

I am sorry to have consumed so much of your time, but I promise not to bore you with a paper soon again. I have endeavored to note those cases that should receive an operation; all cases that are in any way disabled from work or business; that a truss will not readily retain, without pain or inconvenience; all irreducible hernias, or sac, or omentum, where annoyance is felt, and in those others above enumerated. The operation is not dangerous when not complicated with a severe strangulation.

In recent times the mortality following active severe strangulation has been materially lessened; the older statistics placed it at 68 per cent. (Connor). It is yet sufficiently dangerous to avoid; as may be done by a prestrangulated operation in cases where you are led, from above classification, to expect such a result sooner or later.

CLINICAL CONSIDERATIONS CONCERNING ANÆMIA IN YOUNG WOMEN, INCLUDING ITS TREATMENT.[1]

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THIS subject is one which appeals alike to the general practitioner and the specialist. The term *young women* is used to include those who have reached the age of puberty, and the few years which immediately follow it, special stress being laid upon this particular period since every pathologist, and every clinical observer with the most moderate

[1] Read before the Connecticut Medical Society, at its annual meeting in New Haven, May 29, 1890.

powers of observation, does not fail to note the all-important constitutional changes which are inaugurated as puberty is established. It is properly considered one of the critical experiences of life, and as the influences attending its establishment are more or less favorable, so do we see more or fewer complications affecting the general health of the individual. One of the most common complications which presents itself at this period is anæmia, the condition which engages our attention at the present time. The term is a comprehensive one, and includes, in this connection, not merely pallor of the skin and mucous membrane, but a general disturbance of the entire nexus of functions of the body; and though it is generally susceptible of relief, it may be the forerunner of serious or fatal lesions. It is, therefore, a subject which may well command our careful and earnest consideration. Its importance has been impressed upon my own mind by a not inconsiderable experience during the past ten years, both in private and public practice. It has been the custom of some writers, following the lead of Becquerel and Rodier, to consider that form of anæmia known as chlorosis —a form which is more common in young women than in any other class of individuals—as an entirely distinct disease; and Raciborski has attributed it to disorder of the sympathetic nervous system, but without a sufficient basis of fact derived from pathological investigation. It has seemed to me that such a discrimination was not warranted.

[NOTE.—It is not denied that there are cases in which the influence of the ganglionic system in the development of anæmia is very prominent in a causative sense. Such, for example, is the remarkable case published by Dr. W. H. Thomsen,[1] in which the disease was precipitated by exposure to cold and wet while menstruation was in progress.]

With the exception of the greenish discoloration of the skin (and no evidence has been adduced as to the particular origin of this discoloration), the symptoms are the same as in ordinary simple anæmia, and the same plan of treatment which relieves the one will also relieve the other.

Thomas devotes a chapter to the subject,[2] but his arguments lack convincing force, and his admissions only strengthen one in regard to the identity of the two conditions.

Virchow, Perls, Ziegler, and other German pathologists, consider the two conditions as identical.

On the other hand, there are certain conditions which simulate simple anæmia, from which the latter is to be sharply distinguished, and they are the more readily excluded, since they rarely occur at the period of life which we are considering, as may be seen by reference to the statistical tables of H. Müller, Coupland, Eichhorst, and Pye-Smith.[3] Such are pernicious or so-called idiopathic anæmia; Addison's disease, or disease of the supra-renal capsules; Hodgkin's disease, or pseudo-leukæmia; leucocythæmia; scorbutus, and the various cachexias of the chronic wasting or malignant diseases. For a study of these diseases I would refer to the works of Addison, Wilks, Bennett, Biermer, Pepper, Cohnheim, and others, for the literature is extensive.

Anæmia in young women is by no means limited to the rich or comfortable classes, as some writers seem to think. It is common alike among the children of the rich and the poor; those who love and care for their children, and those who are indifferent to them and neglectful of their wants. It may result from over-feeding or under-feeding, from confinement at school, in the house, or the workshop, and with overwork or an absence of work. A noteworthy fact in connection with this disease is its great prevalence during the winter months—that is, during the period in which women and children spend the greater portion of their time within doors. By far the greater number of cases which have been seen by me have occurred at that period of the year, and it has convinced me that herein lies a most important feature in the etiology of anæmia. Vitiated air within is the rule in the winter season, though there is such a wealth of pure air without. It is so in the tenement house, and the palace, the theatre, the church, the school-house, the workshop, and the factory, and terrible penalties are exacted in consequence. It matters little whether the poisonous element be carbon monoxide from imperfect combustion in stoves, furnaces, and leaky flues; carbonic dioxide and organic vapor from the crowding of too many individuals into a given air space; sewer gas from defective plumbing, or gases of decomposition from decaying animal or vegetable matter, from whatever source. The worst feature about poisoning of this character is that it is a continuous process. There may be no offence to the olfactory nerve; or, if there is, the patient soon becomes habituated to it, until she breaks down, or the return of spring compels a supply of pure air through opened doors and windows. In the case of carbon monoxide, which, in my opinion, is the cause of more anæmia—both in young and old—than any other one cause, there is direct combination of the gas with hæmaglobin, which, unfortunately, has greater affinity for this deadly gas than for the life-giving oxygen; and with the defective oxidation of the tissues, and the development of anæmia, there comes also diminished resisting power to disease germs in general.

The winter harvest of disease and death depends upon more than one condition; but you can rest assured that until we can fully appreciate and remedy this defect in the air supply of our dwellings, one of the most powerful causes of disease will continue to act, and all the drugs in the pharmacopœia will not neutralize it. Another important factor in the etiology of anæmia is bad food, by which is meant not only poorly-cooked or mal-assimilable food, but an excess of any one class of proteids to the exclusion of others. With young girls there is very often a great tendency to subsist upon hydro-carbonaceous articles of food, to the exclusion of the albuminoids.

Among the other important causative elements may be mentioned constitutional disease, including scrofula, tuberculosis, and syphilis, malarial poisoning, severe or protracted acute disease occurring as puberty is being established, and including the exanthemata, and disease of the lungs, pleura, heart, and kidneys, insufficient exercise or exhausting labor, and occasionally the various forms of nervous disorders, including chorea, epilepsy, the neuralgias, nervous shock, fear, etc. It may be objected that anæmia is but a symptom in many of these diseases, and this is true; but it is also true that in very many cases this symptom persists long after the original disease has disappeared.

Virchow propounded the theory, based upon post-mortem investigations, that anæmia was due to narrowness of the aorta, or insufficiency in the size of the heart. This may be a satisfactory explanation

[1] Trans. N. Y. State Med. Soc., 1867.
[2] Diseases of Women, Fifth ed., p. 978.
[3] See article Anæmia (J. H. Mussèr) in Wood's Reference Hand-book.

for certain cases, but, as W. H. Thomsen has said,[1] there are so many cases in which it does not apply that it cannot be considered as anything but an exceptional cause. In addition to the foregoing, there are certain conditions, or symptoms, which I have found almost invariably present in every case of anæmia in young women, and which are sometimes to be regarded as cause and sometimes as consequent or concomitant. These relate to the alimentary canal, and are as well marked as anything in the entire morbid situation. They consist in pallor of the mucous membrane of the lips, mouth, and pharynx, flabby condition of the tongue—which is covered with a nasty white fur, gastralgia, fermentative dyspepsia, obstinate constipation, with the occasional discharge of light-colored, pasty stools, and frequent recurrence of painful tympanites. The fæces show a deficiency in the biliary secretion; there is occasionally an aching or soreness in the hepatic region, and the odor of the breath is intolerably offensive.

The functions of the urinary apparatus are usually undisturbed; in fact, I do not recall any case, unconnected with nephritis, in which there was complaint of trouble in this viscus.

Comparative analysis of the urine in a series of cases of anæmia would furnish interesting data as to the variations in albumen, urea, uric acid, and the inorganic constituents; but such investigations, so far as I know, have not been made. Not infrequently there is profuse vaginal catarrh, and this, with the other symptoms pertaining to the genital organs, will be considered in greater detail, for it was these symptoms which brought many of my cases to my notice. The appearance of the skin is characteristic—it is pale, sometimes almost a waxy white; the nails are bloodless, and the extremities constantly cold and clammy. The conjunctival, nasal, and vaginal mucous membranes share in the pallor which characterizes that of the mouth and pharynx. The patients are constantly weak and languid, suffer much with headache, are incapable of any sustained exertion, and are apathetic and indifferent to their surroundings. Œdema of the ankles and eyelids is an occasional, but by no means constant, symptom. It is to be explained by the weakness and low tension of the vascular system in general.

In some cases there is emaciation, in others the subcutaneous fat may be abundant, or even excessive. Usually there is drowsiness, and a desire to sleep the most of the time; but in some cases there is insomnia.

[NOTE.—In a recent clinical lecture upon this subject by my friend, Dr. Thaddeus Reamy, of Cincinnati,[2] in which I have been pleased to find views which corresponded entirely with my own, a case is narrated in which insomnia was a prominent symptom. I think such a symptom is exceptional, however, and not customary.]

The heart action is feeble and rapid, as would be expected, and anæmic murmurs are not uncommon. As a rule, they have no serious significance, and disappear with the return of health. Another symptom which is frequently present, and a source of great disturbance to the mothers of the young patients, is amenorrhœa, or oligomenorrhœa (*i. e.* scanty menstruation), and very rarely polymenorrhœa (profuse menstruation).

If we give the subject a moment's thought we will realize that there is every reason why this symptom should be present. The menstrual flow is the visible evidence of congestion of the pelvic circulation. Menstruation means much more than this, but we need not discuss other considerations at present. If the pressure in the vascular system is low, pelvic congestion will be unlikely to occur, and little or no blood will be discharged, though there may be venous stasis and œdema in certain parts, as we have seen. Anæmia often occurs at the time when menstruation should be established, which, in our climate, varies usually between the twelfth and sixteenth years, and while it persists it is a sufficient explanation for the non-appearance of the menstrual flow. Instead of being regarded as an evil, it should be considered a conservative procedure on the part of nature, for, poor as the blood is, anæmic patients cannot afford to lose much of it, and if the loss were considerable, a very unfavorable complication would be added to the disease, which might modify the prognosis to no inconsiderable extent. Again, an undeveloped condition of the uterus and ovaries is believed by some writers (Perls, Thomas) to be not only the essential cause of the amenorrhœa in these cases, but of the anæmia as well. That such a condition of these organs may be a cause of amenorrhœa is undoubted, though menstruation does not depend entirely upon their integrity and normal development; but it would be difficult to prove that it was a necessary cause of anæmia. There are many cases in which amenorrhœa exists without anæmia. There may be anæmia with co-existing metrorrhagia, as Virchow has shown, and as many others could testify. Still, in a number of cases in which it has seemed to me proper to make a vaginal examination, I have found an undeveloped or deformed condition of the uterus co-existing with anæmia and amenorrhœa. It is not improbable that anæmia existing prior to puberty may so modify the nutrition of the pelvic organs that the establishment of menstruation will be delayed; but we still have much to learn upon this entire subject.

The condition of the blood in anæmia is an important consideration. Its tension in the vessels is lessened, for the central source of power—the heart muscle—being impoverished and weakened, the entire vascular system must suffer in consequence. The color of the blood in anæmic girls is a pale red, and it is watery—that is, hydræmic—in consistency. This means deficiency in red corpuscles, and consequent deficiency in hæmoglobin. If the anæmia is due to the absorption of carbon monoxide, as I believe is frequently the case, this would account for the destruction of the red corpuscles and the combination of this gas with the hæmoglobin.

The white corpuscles are increased in number, for the supply from the lymph ducts continues, however great be the destruction of red corpuscles. Many of the red corpuscles are very small (microcytes), and some are very large (macrocytes), and they may have a crenated or dentated appearance. These changes in the size and shape of the corpuscles have been very fully studied by Hayem, Osler, Mackenzie, Eichhorst, and others. The blood of anæmics also coagulates less readily than that of those who are in health. This would possibly indicate that the fibrinogen of the plasma was diminished, while the paraglobulin and fibrin ferment of the white corpuscles, which are in excess, were normal or superabundant. The albumen of the serum is increased.

The course of simple anæmia depends upon various conditions. With those who have no complicating disease the return of warm weather, when the air supply in the dwelling is improved, means an im-

[1] Wood's Reference Hand-book, article Chlorosis.
[2] See *Journal of the Medical College of Ohio*, May, 1890.

provement in the anæmia. With those who have the taint of inherited disease, the conditions are favorable to its development. With others, the prompt and continuous administration of suitable remedies, and the adoption of proper diet and exercise, will sometimes work wonders, even though the hygienic surroundings continue less favorable than could be desired. My experience has been particularly gratifying in dealing with this condition, and I have rarely failed to see evidences of improvement when the line of treatment which was recommended has been faithfully followed.

In my plan of treatment I have made no distinction between those who were chlorotic and those who were simply anæmic. As already stated, I believe that chlorosis and anæmia are essentially identical.

Prevention is better than cure, and many of the cases of anæmia are entirely preventable by proper attention to air supply, food, and exercise. Of course, this means a reform in house-building and in the habits of our girls which will be little less than revotionary, and I am not sanguine that such a reform will occur. Indeed, until the love of physical beauty has in it something of the passion which inspired the Greek nations—which, in the best days of their prosperity were the most highly cultured people, physically and mentally, the world has ever seen—there will be, in the majority of cases, a disinclination to submit to those irksome regulations by which physical beauty is acquired and retained.

The three legs of the therapeutic tripod, in the treatment of anæmia, are hygiene, diet, and drugs; and all are indispensable.

It matters little what has been the cause of the anæmia, the main requirement is the same for all, namely, improvement in the condition of the vital fluid. If the air supply in the home is imperfect, it must be remedied by improvement in the plumbing, by letting in more sunlight, by better ventilation, by less crowding—that is, more air space per individual—by a change of dwelling, if necessary. If the condition is traceable to an improper school-room or workshop, the girl must be removed from it. This may be difficult or impossible, but nature's demands are imperious, and this may be the only alternative. There should be daily exercise in expanding the lungs to their fullest extent, and that, too, in an atmosphere which is pure and wholesome. In most cases the daily inhalation of pure oxygen, which can now be readily obtained in most of our large cities, will hasten the return to health. Sun-baths and daily exercise by walking or riding must also be insisted upon. Horseback riding, for those who can afford it and are strong enough to bear it, is one of the best means of exercise; but neither this nor any other form of exercise should be too violent, nor carried to the point of great fatigue. With girls who are compelled to work, the work must be made as light as possible, and it would be far better to discontinue it altogether and allow mind and body to vegetate for a time. Sleep must be encouraged; one should go to bed early and get up late, and it would be well to take a nap every afternoon—or, at least, lie upon the couch for an hour. It is well to take a sponge-bath, with moderately cool water, on rising, and follow it with brisk rubbing of the entire body. The diet must be simple and nutritious. Tea, coffee, and alcohol are usually to be avoided, also fresh or badly-baked bread, and rich or indigestible food of all kinds. Albumenoids, in as great quantity as can be readily disposed of, are indicated, especially rare and lean beef and mutton, an occasional soft-boiled egg, and large quantities of milk. The latter, which is everywhere obtainable, is within the means of the poorest and is usually well tolerated, has been with me a mainstay as an article of diet in this disease. If one can succeed in getting a girl to drink two quarts of good milk daily, there is little doubt but that her condition will improve. There can be no question concerning the utility of iron in this disease. It is a component element of hæmoglobin. Hæmoglobin is the medium by which oxygen is distributed to the tissues. In anæmia we have a deficiency of red corpuscles, and consequently of hæmoglobin and oxygen. Iron stimulates the development of red corpuscles, and is indicated above all things else in anæmia. I have ceased experimenting with the various preparations of iron, having found in the combination of the sulphate with the carbonate of potassium, in the pills known as Blaud's pills, a preparation which leaves nothing to be desired from a pharmaceutical stand-point. The praise which was given to this preparation by the late Prof. Niemeyer was not extravagant. I begin treatment with one of these five-grain pills after each meal, quickly increasing it to two pills three times daily. The addition of arsenious acid is frequently beneficial, three to five drops of Fowler's solution after meals being an efficient dose. Almost invariably it will be necessary to relieve constipation, and I have found nothing better for this condition than one or two compound cathartic pills at night, with a saline before breakfast the following morning.

This laxative treatment must be continued, with suitable intermissions, as long as the constipated habit remains. Equally important is the regulation of the digestive function.

If there is fermentative dyspepsia, an occasional dose of salicine, or other suitable antiseptic, may be given before eating, while if the digestive power is feeble, we can afford great relief by means of one of the excellent preparations of pepsin which are now available, with or without the addition of hydrochloric acid. I have also seen great benefit from the use of hot water, a tumblerful being slowly drunk about half an hour before each meal.

I have reserved until the last the very important question as to the propriety of vaginal examinations and local treatment in these cases; and it is a question in which no little judgment and conscientiousness must be exercised. In general, I do not hesitate to say that such examinations should be omitted unless the indications for making them are very clear. If the anæmia with amenorrhœa occurs in one who has previously been in good health, and has menstruated a certain number of times without any particular abnormality, an examination is not indicated until a fair trial has been given to the treatment which has been suggested. I have many times adopted such a course, and have never yet regretted it. If anæmia occurs in one who has never menstruated, the previous health having been good, an examination should be deferred until the restorative treatment has been fairly tried. If the anæmia is relieved, and menstruation fails to appear after a few months, a vaginal examination should be made, presupposing that all the facts indicate sufficient maturity on the part of the patient for the establishment of the menstrual function. If anæmia comes with great disturbance of the menstrual function, and clear indications of disease of the pelvic organs, a vaginal examination is indicated, the same as if anæmia were not present. The age of the patient should not interfere with the performance of what is clearly a duty.

159 East Thirty-seventh Street.

Society Notes.

ALLEGHENY COUNTY MEDICAL SOCIETY.

Special Meeting, June 17, 1890.

J. A. LIPPINCOTT, M.D., President pro tem., in the Chair.

CASE OF SUSPECTED VOLVULUS.

DR. BATTEN reported: On Sunday, June 8, I saw a man who had been suffering for several days with intense abdominal pains. There was sickness at the stomach. I gave him a quarter of a grain morphia sulphate and extract of belladonna every hour. That did not control the pain, and Dr. Pollock was called in consultation. We continued with the belladonna and the sulphate of morphia every hour, and a hypodermic injection of morphia every six hours. This quieted him. The morphia and belladonna were continued steadily, and when the pains became unbearable, morphia was injected. He continued in that way, with vomiting, until Friday. I omitted to say we injected warm water into the bowels. On Friday afternoon there was a passage of the bowels, and we omitted the hypodermic injection and the morphia and belladonna, and gave him Rochelle salts in small doses. Yesterday he had three hours sleep. Last night he slept all night. To-day he is well.

DR. BUCHANAN: I would like to know if any tumor could be felt?

DR. BATTEN: No, but the abdomen was very hard.

DR. LANGE: I would submit that Dr. Batten has given no evidence of intussusception; it might have been a case of ileus, a case of fecal obstruction, or of typhlitis; Dr. Batten has given no evidence of volvulus.

DR. BATTEN: It was an obstruction of the bowels. No hard matter came away after the bowels commenced to move.

DR. HUSELTON: I would be disposed to criticise the treatment. I cannot readily understand why he should resort to purgatives in such a case. Of course the opiates would be all right to allay pain and quiet the bowels. It seems to me that purgatives would hardly be proper in such cases.

CASE OF PUERPERAL CONVULSIONS.

DR. DUFF: About one year ago, I reported a case of puerperal convulsions to this society. I was called to see a young woman of twenty, about two weeks before the time of labor. I found general anasarca as well as urine loaded with albumen, and I treated her, as I indicated in my report, by giving her digitalis. About six days after, I was called to see her. She was taken in convulsions, which could only be controlled by chloroform. These we controlled for about twenty-four hours, when they returned. I then dilated and delivered her of a male child. The child lived about a week. The mother made a good recovery and did not have convulsions after delivery. Against my orders, she cohabited with her husband and became pregnant within three months. Before pregnancy her urine was normal. At four months I examined her and found considerable albumen. I then put her upon nitro-glycerine, one drop doses three times a day, with the result that the albuminuria disappeared. At six months the albumen returned, as well as the dropsical condition. She was again put on nitro-glycerine and there remained a slight trace of albumen during her whole pregnancy. She was confined last Tuesday morning; I applied the forceps, delivered her, and she has made an excellent recovery. I might follow this case with another almost similar in history, in which nitro-glycerine was used with as good results; but in a third case it did no good. Taking it all in all, however, my experience is that nitro glycerine is one of the best remedies we can use in these circumstances.

DR. CONNELL: Two such cases came under my notice. One showed about 10 per cent. albumen; this was at the beginning of the seventh month. In about two weeks I was called to see her in convulsions. Another case was one in which I was called by Dr. Hallock. In this case there was no albumen in the urine. The woman had reached full term and the labor progressed slowly but favorably; being first labor, of course it was a little tedious. During the second stage, she was seized with a terrific convulsion; during the time we were delivering her, which we did as quickly as possible, she had three or four convulsions. There was no trace of albumen in her urine.

DR. STEWART: Albuminuria, uræmia and convulsions during pregnancy are invariably ascribed to circulation interferences by pressure of the enlarged uterus. But it is worthy of note that abdominal tumors as large as the uterus at term, and occupying the same situation, do not entail these results. How can this be explained? It is to be remembered that pregnancy possesses other means to effect convulsions, namely, through the nervous system. In addition, discrimination is necessary, and all convulsions occurring during pregnancy, labor, and the lying-in, are by no means to be ascribed to, and treated as, the result of uræmia.

DR. GREEN: April 28, last, I was summoned to see a child six years of age, with typhoid fever. The patient remained ill with the characteristic temperature curves during twenty days. During the last six days, cerebral symptoms seemed to predominate, and about the time the fever subsided and the temperature became normal, the child seemed to convalesce rapidly, and seemed cheerful. On the twenty-second day, when I called, they told me the child had not spoken the past night, and had spoken but once since I made my visit the day before. She continued in this mute condition for six days without uttering an audible note. During this time there did not seem to be any unusual delirium, but about twenty-four hours before she began to speak she manifested considerable delirium of rather a cheerful nature. It was on the seventh day she began to speak, and within forty-eight hours she talked as usual. I think this case is unusual. The child made a good recovery, and is now apparently as well as before the illness.

DR. BUCHANAN: I have seen a case very similar to Dr. Green's. A child seven years old was attacked by typhoid fever, and passed through a typical course of fever lasting four weeks. The child was then unable to speak. It had no other cerebral symptoms whatever. In all other respects the case was an ordinary one. It returned to speech more gradually than Dr. Green's case, but finally completely recovered. I think it was almost a week from the time it commenced to say individual words until it was able to express its wants.

DR. HUSELTON: I have to report a case of dislocation of the hip-joint. The dislocation was that which is commonly known as the dorsal dislocation. The case had been seen and manipulated by another

surgeon, and in the manipulation the head of the bone had slipped into the thyroid foramen, an accident which may happen to any one of us, and which is not so readily reduced. On my third effort I succeeded in dislodging the bone, and it returned to its place with a snap so loud that I felt certain I had fractured the neck, but was glad to find that I had not. This is the third case of dislocation of the hip I have reduced by manipulation. The first one I had no difficulty with whatever. The second one I also succeeded in reducing without special effort. The patient made a quick recovery in this last case.

DR. MCCANN: This is not an uncommon accident in attempting to reduce a dislocation of the hip joint; in the effort to place the head of the bone in its normal position, unless there be extreme care exercised, it will be thrown into one of the other dislocations. Some years ago a man was struck on the back by a railway train, and sustained a dislocation of the hip, as well as other injuries. When he was brought into the hospital it was not appreciated that he was fatally injured, and an effort was made to reduce the dislocation. The effort most signally failed for a long time; finally the bone slipped into position just as the man was dying.

A post-mortem showed that not alone the fibro-cartilage around the periphery of the acetabulum, but a bony section at the superior edge also was fractured off. The specimen was not retained. It would have been of value. A few years ago a child of ten years was subjected to several efforts at reduction of the dislocation by manipulation. The head of the bone could be thrown into the thyroid foramen, and was apparently reduced, but as soon as the extension was removed there was an immediate reproduction of the dislocation, although a deformity did not exist. After two or three surgeons had made a number of efforts to reduce the dislocation by manipulation, the child was put in bed with extension by a splint, and eventually recovered. I am satisfied that this case—although, fortunately for the child, we had no opportunity to verify the opinion, for she lived—was also a case in which the cartilage, and perhaps some bone, had been torn off.

Occasionally, as has been demonstrated by Dr. Murdoch, dislocation which cannot be reduced by the ordinary manipulations will be reduced by a little traction. I remember one in which I was able, by my own unaided effort, catching the foot and pulling powerfully upon the limb, to replace the head of the bone in the socket.

DR. PETTIT: Two cases I saw in the hospital which were reduced by extension. One had been worked with a long time by a half dozen physicians and attendants, and there was failure to reduce the dislocation. While they were rigging up the rope and pulley arrangement to try, some one grasped the man by the limb, and by no great force, but simply by steady pulling for maybe three-fourths of a minute, the bone slipped into place. Since that time I have seen one other case reduced in the same manner after quite a good deal of manipulation without success, by extension without a great deal of force, but the force being kept up some minutes steadily.

DR. BUCHANAN: I recall a case in which efforts were made to reduce a dislocation of the hip in a railroad man by, I suppose, five or six competent surgeons, and, when they were through, the reduction was unaccomplished, and the opinion was expressed that it must be a fracture of the rim of the acetabulum neck, and that it was impossible to reduce it. Dr. LeMoyne requested to be permitted to put on an extension, and by extension and some little manipulation—not the ordinary manipulation, but manipulation during extension—he reduced this hip-joint. This man was on the point of being returned to bed with his luxation unreduced when the successful attempt was made.

DR. BATTEN: I had a case of dislocation of the hip, and could not reduce it. Dr. Emmerling, Dr. Dickson, and Dr. Reiter were present. The bone went into place with a snap under Dr. Reiter's manipulation.

DR. KŒNIG: I would like to ask if it might not be possible that the position of the rent in the capsule has much to do with the return of the bone—where the surgeon is not able to return the bone by the method of manipulation, and where the method of extension is readily followed by reduction of the bone, is not the location of the rent a factor in the case?

DR. MCCANN: What I wish to say is that, in the cases of extension, the patient being entirely under the influence of an anæsthetic, completely relaxed, the amount of force used was not great. In my own cases I did not exert a very great force, and it slipped in.

Another method consists in etherizing the patient, laying him on his abdomen on a table, and allowing the limb to hang down over the end of the table. The result is that, after a certain length of time, the muscles of the abdomen relax, and with almost no manipulation the head of the bone is thrown into its proper position.

DR. HUSELTON: A farmer sustained a simple dislocation of the shoulder. He was taken into the town of Harmony, where two surgeons tried to reduce the dislocation. They failed, and had the man loaded into a spring wagon and sent to my office, with a note asking me to call in some of my friends and attempt to reduce the dislocation, and, in the event of a failure, to send him to the West Penn Hospital. I said I would make an attempt to reduce it myself. I took the patient into my back office, laid him upon the lounge, and, standing behind him, I pulled and told him to pull, which he did; and I think the dislocation was reduced in about two minutes. Now these were competent men who failed with this case, and they seemed to have exhausted every effort. Therefore I think we should be very charitable indeed before we condemn a physician for failure to reduce a dislocation.

THREE CASES OF FATAL PERICARDITIS—WITH AUTOPSIES IN TWO.

DR. LANGE: I wish to report three fatal cases of pericarditis. The first was a large German, previously healthy, with no discoverable hereditary taint except that his mother had died of some lung disease at the age of thirty-two. The man was a cooper by occupation, and boasted of his previous excellent health. He presented, on examination, the usual signs of pericarditis except that of pain. He presented, in addition, the ordinary signs and symptoms of a slight fever. Pericarditis was suspected in this case, and, during the next three weeks under observation, it was ascertained to exist. This man died, of heart failure, on the water closet. The autopsy showed the heart to be the so called hairy heart. There were numerous and strong adhesions between the parietal and visceral layers. Other lesions consisting of organized bands from the visceral to the parietal pericardium of from a quarter to an inch in length, and as strong as the chordæ tendinæ. These

must have exerted a potent and pernicious influence upon the contraction and rotation of the organ. Still other bands were free at one extremity, which floated in the very limited amount of effusion. This was a tubercular pericarditis ; and nowhere else throughout the body was tubercle discovered.

The second case occurred in an Italian, aged thirty-five, who had a left-sided, lower-lobed, croupous pneumonia, accompanied by a pleuritic effusion large enough to require tapping. In the third week, resolution not happening, the pneumonia became purulent, and thus developed the secondary pericarditis. On autopsy, the heart was found to be like the first, and the effusion to be small. The patient died while sitting on the edge of his bed.

The third case was an Irishman, a very active man, yardmaster at one of the railroads here. He came to my office complaining of shortness of breath and presented the signs, symptoms and phenomena of a mild fever. He had no pain, little headache, little backache, general malaise, anorexia, in short all the signs and symptoms of a slight fever, a pericardiac friction murmur, and a tumbling heart, but no en larged area of cardiac dullness. Dyspnœa was his only complaint. He had it two months and it was growing. After two weeks he thought himself so well that we could not restrain him. He would leave his bed and go about his room. One Sunday morning he sent for a barber to shave him. He got up, sat on a chair, took the Sunday paper to look it over and fell dead. There was no post-mortem. From repeated physical examinations I be ieve the condi tions would have been found as in the other cases. In pericarditis of gravity, which cases constitute the small minority, there is one remedy to which we at last arrive. This is digitalis. It is said that digitalis is proper to strengthen the action of the heart. My experience with these cases and others leads me to think that digitalis has very little effect in increasing the power of the heart in pericarditis. Another point is that death from pericarditis, which is usually ascribed to the size of the effusion when it is large, may be due rather to interference with the action of the heart by adhesion. It is my opinion that this latter is frequently, and that large effusions are rarely, the cause of death. Large effusions belong rather to those inflammations of the pericardium which complicate rheumatism and nephritis, and which are not fatal. When the effusion is large, what can we expect from digitalis? The interference in this case is not with contraction—but with the filling—the diastole of the heart; and this being purely a muscular relaxation is uninfluenced by digitalis. The only effect then that we should expect is that which would happen after the administration of digitalis, in, for instance, the granular degeneration of typhoid fever, pneumonia, or any disease of gravity and duration ; and this, it must be confessed, is little. The effect, indeed, would be less, for even if the systole should be improved by digitalis, the diasole cannot be, and consequently the intra-arterial tension is not increased. On the other hand, if the adhesions constitute the obstacle to efficient contractions, we can understand how an increase of power in systole by digitalis might fracture, tear off, or free the parietal from the visceral pericardium, and thus allow an increased quantity of blood in the arterial system. But I have not observed this to happen, and the administration of digitalis for pericarditis is pregnant with disappointment, and is in striking contrast with its effects in heart dilatation.

The Polyclinic.

PHILADELPHIA HOSPITAL.

ULCERATION—SKIN-GRAFTING.

THE deeper structures of the body are separated from the air by a membrane—the skin—upon which is a growth of epithelial cells. When the epithelium is disturbed, an irritation is the result, and from this irritation come different reactions that will produce a certain amount of destruction, and then disintegration of tissue with slough, and we have left an ulceration. An ulcer is a solution of the continuity of the soft parts that has been contaminated by some micro-organisms, which find here a suitable soil for their development and growth. These micro-organisms irritate the surface, forming a substance called the *ptomaine.*

You all know that beer is due to the growth of a germ in a sweet solution ; and, because the germ has grown, that sweet soil has changed its nature, and becomes what we know as alcohol. So also, in an abrasion of the skin, we have the serum of the blood, which is an albuminous and harmless fluid ; but, when germs grow in it, it is no longer serum, but is disintegrated and acts as an irritant, and ulceration is the result.

Let us examine for a moment a section of the skin with a microscope, and what do we find ? The upper or outer layer is the epidermis, which is composed of epithelial cells arranged in layers, and dipping down into the depressions between the papillæ of the true skin. Below the epidermis is a basement or limiting membrane, which separates the papillæ from the epithelial layers. The papillæ and true skin lie beneath this basement membrane, and each papilla is freely supplied with glands, nerves, capillaries, vessels, and hair follicles. Below this is fibrous connective tissue.

In an ulcer the mouths of the vessel are open, and, as a result of the irritation, there is a congestion, and the white corpuscles of the blood escape from the open vessels, and illustrate a phenomena called *diapedesis* (I travel through.)

A white corpuscle, from the time it has left the vessel, is a granulation-cell, and is an integral part of the surface of rosy granulations, and this is the reason we have a healthy sore. This would be the case and would remain so, if it were not that something destroys these granulations, and that something is a germ. The germ causes death of the cell, and, as a result of its death, we have what is known as *pus.* When you see a pus-corpuscle, it expresses the failure of a cell to be formed into tissue.

Suppose this has not been the case, and antiseptic agents have been used to prevent the micro-organisms from getting into the parts—the cell is allowed to perform its function, what happens?

At first the cell is round ; it elongates and assumes the spindle shape, and finally forms a fibrous cell, and enters into the formation of tissue. In this way the ulcer fills with cells to the surface, and in time these granulation cells form a dense mass of fibrous tissue. Below are the fully developed cells, while on the surface we find the younger cells. When the ulcer has filled to the same level as the epithelial layer, all that is required to complete the healing process is to cover it with epithelium, and we have a true healed sore. How do we get this epithelium ?

It can be obtained slowly or quickly. If you desire to wait, that epithelium can grow only from the sides of the ulcer by proliferation, and in several months

the cells will spread from the sides and cover it. But when you have to deal with a large ulcer, you cannot wait for this.

Reverdin taught us the *grafting* process by taking epithelium from the body and placing it on the ulcer. He took small bits of epithelium and implanted them over the ulcer; but this was a slow process. Following out the same theory, Thiersch brought it down to this: if you can transplant small amounts of epithelium, what is the objection to transplanting a large amount?" He simply cleanses a portion of the body and renders it aseptic, and peels off strips of epithelium in a sawing way, as you would peel a potato, and covers the ulcer entirely, and, if you have been aseptic, union will follow and heal completely.

You will find that the cases are selected, as it would be a vain endeavor to transplant epithelium upon a soil that is unsuited to its growth. The surface of the ulcer must be prepared.

First of all, see that the ulcer is filled to the surface with healthy granulations. Sterilize the surface with some antiseptic solution, so that, when the epithelium is put on, pus will not develop. The place from which you take the epithelium must be washed with ether and sterilized—that is, washed with acid sublimate solution.

In this old man before you there is a small ulcerated surface that I think can be covered with two grafts at most. An ordinary straight scalpel is taken, and a graft, three inches long by three-quarters of an inch wide is taken off and the ulcer covered with it. Spread the pieces carefully on the surface to cover the whole sore.

It does not matter if the graft is a little too large, for there will be a small amount of melting, as it were, and the mucous layer takes to the granulations; but the epidermis above is dead, and scales off like dandruff. By making the skin tense in removing the strips you lessen the pain to the patient, for no anæsthetic is required in this operation. The ulcer will then be dressed with sterilized gauze, and the dressing allowed to remain for three weeks. I might have dressed this ulcer with iodoform; but this man has a peculiar idiosyncrasy against it. What should be our guide in the subsequent treatment of such a case? Simply temperature and pain. Where there is no pain, leave the dressing on indefinitely, for the wound is doing well. What have I done in grafting this case?

I have tried to cut the very tip ends of the papillary layer, and I know I have cut them; for, if not, I would not have drawn any blood. Having cut the papillæ, you have gaping mouths of the vessels, which inosculate or anastomose with the gaping mouths of the vessels of the ulcer, and in this way obtain a true union. Eventually, when the sore is well, you will have this difference in the new skin from the surrounding skin: the absence of hair follicles, sebaceous and sweat glands, for you have not cut deep enough to obtain these structures.

What is true for this ulcer is true for all other ulcerations, such as those from burns or plastic ulcerations about the face or other parts of the body. Absolute cleanliness and antiseptic measures may seem to be a light matter; but it is better to be over careful than not careful enough in preventing the contamination of the ulcer with germs present in the air and surrounding media. As there must be some secretion from the ulcer, I will place absorbent cotton over the gauze dressing, to catch it and retain it in a healthy condition.

The healed ulcer will always have a weak skin, and it will tend to return in the same spot, and it is well to wear a compress bandage to support the parts.

[NOTE.—Three cases were thus treated before the clinic, and the dressing removed twenty-one days afterwards. The ulcers had completely healed under *one* dressing.]—*Laplace.*

CIRCUMCISION.

I will bring before you another case upon which I wish to perform the modified operation of circumcision. The indication for this operation is an irreducible prepuce, phimosis, or the existence of a venereal ulceration which cannot be reached when the glans is covered.

Von Bergman, of Berlin, has modified the operation of circumcision. His method consists in slitting up the prepuce over the glans, and trimming the two "dog eared" flaps according to the necessities of the case. No set rule can be followed for doing surgical operations, and a *set* rule is always contra-indicated. You must understand the principle and add any modification that the case may demand.

The man before you has chancroid posthitis and phimosis. We simply slit up the prepuce on the back of the glans; resect the "dog ears;" use a continuous suture of black silk, and stitch the skin and mucous surface together, and the operation is complete. He will have a prepuce left that will cover the glans.

This wound will be contaminated with the chancroidal poison. Chancroid is auto-inoculable, and one case is on record where one man was inoculated two thousand seven hundred times with true chancroid. This man will be given the benefit of the best antiseptic treatment: the acid sublimate solution. Acids will prevent the spread of a chancroid; hence the propriety of using the acid bichloride of mercury locally for a few days.—*Laplace.*

PYÆMIC ABSCESSES.

This woman, whose temperature chart is longer than herself, has been in the clinic a number of times before, suffering with a pyæmic abscess under the knee, that is now healed. The knee is so stiff that she is unable to walk. She has a fair appetite, and is now a well woman. This case illustrates to you that a dangerous case of pyæmic infection during labor may recover. We attribute her recovery to several things, not the least of which is the patient herself, as she had so much courage, and at no time did she give up. The treatment was stimulating from the first; all pus was evacuated just as soon as possible after it was detected. I think she has now recovered sufficiently that she will not need to come to the clinic again. It is now seven months since she was first taken ill. There is no reason why she should not continue to improve indefinitely.—*Davis.*

PUERPERAL DIPHTHERIA.

The next case is one of the same sort as the last one, and she is able to come to the clinic herself, in place of being carried here. She is a colored woman, and came into the house three months ago with a history of being delivered outside of the hospital amidst very bad hygienic surroundings. Examination revealed a severe diphtheritic septic infection from a diphtheritic ulcer on one side of the cervix uteri. The patient's baby became infected with septicæmia from the mother's milk, and died. The glands in the groin of the woman, on the side corresponding to the ulcer on the cervix, were enlarged, and were poulticed with linseed meal mixed

with water, which contained 2½ per cent. of carbolic acid. The diphtheritic ulcer was cleansed and carbolic acid and iodine, with iodoform, was used on it. The patient was stimulated and steadily improved, until she is now almost entirely well and able to appear before us without assistance.—*Davis.*

CEPHALO-HÆMATOMA.

I have here a case of cephalo-hæmatoma that is not recovering as it should. I will have the resident physician extract some fluid by an antisepticised needle of an aspirator, and will then use compression. The temperature of this child has never been above 100° F. It has been wearing a cap with a boric acid dressing over the tumor. The needle is small and nothing but bloody serum is coming from it. Only a few drachms will be removed, and this will amount to one-half the fluid in the tumor. Why not remove all the fluid at once? Because you do not want to lessen the pressure entirely from the walls of the tumor. If you are ever called in to see a man who cannot pass his water, and in whom the bladder is full, you must be extremely careful how you remove the fluid. When there has been long-continued cystitis and occlusion of the urethra, do not empty the bladder completely, for you will so derange the mechanics and physics of the urinary apparatus that you will cause blood to extravisate into the glomeruli of the kidneys and cause trouble. Take about one pint of urine out and inject a solution of boric acid. This analogy holds good in the case of this tumor, and also accounts for the benefit of injecting iodoform, ether, and oil into abscess cavities when pus has been drawn off.—*Davis.*

VITALITY OF CHILDHOOD.

This child came to the hospital on July 14, 1889, and is one of twins. Its mother is markedly tuberculous. This child has survived more dangers and complications than any child I have seen for a long time. It has had measles, bronchitis, gastro-intestinal catarrh, and furuncles. You see that a child may survive the ordinary complications of childhood in a large hospital and still live. It has had a diet of 1 part milk to 14 of water. At times we were compelled to resort to the use of barley water and alcohol. It has had little medication, but has been carefully watched. Every day it lives now is that much more in its favor for a long life.—*Davis.*

PYÆMIC INFECTION.

The next patient is a colored woman who is suffering with a trouble that some call septic and others rheumatic. The patient came in with a history of fever, pain, and malaise after labor. An abscess formed over the sacrum, which gave rise to fistulous tracks. We connected these by incisions and drained by means of soft drainage. Following this the temperature fell. Tenderness began to develop in the left elbow and wrist, with a slight rise of temperature, without a chill. The question naturally presented itself, is it puerperal pyæmia or rheumatism occurring in the puerperal state? I know of no absolute means of diagnosis. If we were to aspirate the joints, take a small amount of the fluid and make cultivations, we may arrive at a diagnosis. She is improving on anti-pyæmic treatment, and the abscess tracks have now healed, and she is gaining in weight. The joints have been enveloped in cotton. Salicylate of soda is a valuable remedy both for rheumatism and pyæmic infection; but we cannot be sure of the trouble that she has if it is given. The main point is to give alcoholic stimulants. I believe this case to be one of mild pyæmic infection.—*Davis.*

NURSING-BOTTLE.

Here is one of those nursing-bottles that comes in from the city. Nothing could be a more efficient breeder of micro organisms than this long rubber tube connected with the bottle. I show it simply for the purpose of condemning it. No child should nurse a bottle unless under observation; and when the meal is done the bottle should be removed. This habit can soon be taught the child. The great objection to letting the child have the bottle all the time is that it fills its stomach with wind from an empty or a half-filled bottle. Use nothing but a small rubber cap on the bottle that can be reversed and thoroughly cleansed.—*Davis.*

PAROTITIS.

We have an epidemic of parotitis in the puerperal wards. Parotitis during pregnancy may be uni- or bi lateral. All the cases were isolated at once—twelve or fifteen pregnant women — and treated symptomatically. Parotid abscess should put us on our guard against puerperal sepsis. Otherwise the mumps have given nothing more than trifling discomfort to the patients. So far as treatment goes, do not make any application that will affect the skin. Keep the bowels free; give liquid diet and symptomatic treatment. If abscesses should form, evacuate them at once freely with antiseptic precautions. Use the acid test as a means of diagnosing parotitis.

—*Davis.*

SAPRÆMIA.

This is a case of fever coming on two or three days after delivery. This woman was brought to the hospital after labor and was allowed to walk upstairs to her ward, and soon after manifested symptoms of fever. No cause could be found to which the fever could be referred. There was no tenderness over the abdomen, and no vomiting. At the present time there is no reason to account for the fever, unless it came from transportation and the exertion in walking upstairs. Temperature was 104° F.; skin fairly moist, and high pulse. I explain it thus: The muscular movements in the upright position have resulted in the absorption of a fibrin ferment that has formed in the mouths of the uterine sinuses, and this set up the fever. We know that absorption of bloody serum after abdominal operations will cause a marked rise of temperature. Careful antiseptic treatment with stimulation is all that is necessary. Now that we are so careful in all our operations and deliveries of women, we have nearly overcome this trouble.

—*Davis.*

CHARLES MARCHAND has issued a pamphlet giving the therapeutic applications of peroxide of hydrogen and glycozone in the treatment of diseases caused by bacteria. Peroxide of hydrogen has been pronounced by Dr. E. R. Squibb to be perhaps the most powerful of all antiseptics and disinfectants. Its harmless character and the absence of all unpleasant taste and odor render it an ideal germicide for use with children.

It appears to us that this substance deserves a much more general trial than it has as yet received; and to those who desire to know more of it we commend the pamphlet before us, which may be procured on application to Mr. Marchand.

The Times and Register

A Weekly Journal of Medicine and Surgery.

New York and Philadelphia, July 12, 1890.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

THE TIMES AND REGISTER,
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CALIFORNIA SANITARIA.

DR. WINSLOW ANDERSON has given us a useful work, in which he has collected a great deal of information concerning the health resorts of California. With the aid of this book, the physician who contemplates sending patients to the Pacific Coast can intelligently advise them as to where to go.

We need just such a book for Pennsylvania; where we have many valuable mineral springs, mountain retreats, lakes, pine forests, and other places specially designed by nature for sanitaria, but which are allowed to remain in obscurity for the want of trustworthy information concerning them and business enterprise to put their merits before the public. Some years ago the State Medical Society investigated this subject, but its report is buried among the proceedings, instead of being published in such a shape as to bring it into the hands of the public. And each summer thousands of our citizens go off to the seashore to contract malaria, enrich Jersey doctors and feed Jersey mosquitoes, when in our own State they could find resorts which are healthier, cooler, very much less expensive, and better-fitted for three-fourths of the invalids than the sea-shore. Somehow, the sea has got the popular fancy, and the mountain must wait for its innings until a change occurs. The majority of pulmonary complaints are, however, best treated by mountain air; hemorrhagic affections become dangerous at the sea-side; anemic conditions in general, and insomnia in particular, do best in elevated regions. For more than half of those who leave their homes in quest of health, the mountains are preferable to the shore; and for those to whom the choice is not material from the standpoint of health, the cheapness of the inland locations renders them most suitable.

But questions of suitability and cost are of really little import in attracting the masses. It is not the best located resort but the best advertised that wins the most patronage. Take Waukesha for instance. A comparatively flat and uninteresting tract, from which arises a number of springs. The waters contain about as much of mineral ingredients as any ordinary spring water; and of no special value.

Twelve grains calcium carbonate, seven of magnesium carbonate, less than one each of sodium carbonate and sulphate, potassium sulphate and silica, a bit of iron, just enough to spoil the water for plethora, a grain of common salt, and nearly two grains of organic matter to the gallon, make up the famous Bethesda Water of Waukesha. The only element of importance is the organic matter, and this is not specially conducive to health. Its presence is easily accounted for. The town lies on a gravelly soil, through which sewerage percolates with little alteration. There is no drainage in the town; and a walk in the early morning affords abundant proof of the purgative qualities of the water, and of the absence of sanitary conveniences. There is only the slightest possibility of any remedial effect being derived from the use of these waters; and until the town institutes a system of drainage, the water should be condemned. And yet the liberal use of printer's ink has sold enormous quantities of this water, and last summer drew over five thousand persons to the hotels of Waukesha. And in full accord with this is it, that none of the other Waukesha springs are as impure as the Bethesda; some of them having scarcely a trace of organic matter; yet as they are not advertised so extensively, they are scarcely known. Those situated on the outskirts of the present town are as yet quite pure; but it is only a matter of time, as the town spreads, when they will become as impure as the Bethesda.

The water from the Katalysine Spring, at Gettysburg, Pa., comes somewhat near the Bethesda in the quantity and nature of its mineral contents; with about one-third the quantity of organic matter, and the addition of borax, barium, lithium, strontium, nickel, cobalt and copper, in traces. Any good to be derived from the Bethesda can be equally obtained from the Gettysburg water, which is of greater purity. Annexed will be found the analysis of these springs in full, for comparison:

KATALYSINE. F. A. Genth, Analyst. U. S. Gallon contains	grains	BETHESDA. C. F. Chandler, Analyst. U. S. Gallon contains	grains.	
Sodium chloride	.65790	....	1.160	
" bicarb	.70457	.....	.872	(carb.)
" sulphate	2.46776	.....	.544	
Potas. "	.20836	.....	.456	
Magnes. "	6 77940	Sodium phosphate,	trace.	
" borate	.03492			
" bicarb	.54260	.....	7.344	(carb.)
Calcium "	16.40815	.....	11.824	(carb.)
" sulphate	.83145			
" phosphate	.00679			
" fluoride	.00954			
Ferrous bicarb	.03585	.....	.032	(carb.)
Manganese bicarb	.00669			
Barium Sulphate	trace.			
Lithium chloride	"			
Strontium sulphate	.00427			
Alumina	.00380	.....	.120	
Silicic acid	2.03076	.....	.736	(silica.)
Nickel bicarb	trace.			
Cobalt "	"			
Copper "	00050			
Organic matter	.70870	.....	1.984	
Suspended matter	1.10069			
Total	32.54272	.....	25.072	

THE first annual report of the Southwestern Dispensary, in Bethany Sunday-school building, Twenty-second and Bainbridge streets, for the year ending July 1st, shows that 1,150 medical, 1,107 eye, 136 surgical, 242 gynæcological, and 279 throat, nose and ear cases were treated, a total of 2,914 cases. The physicians' staff consisted of Drs. A. E. Roussel, H. J. Hansell, J. H. Bell, A. Hewson, I. H. Elder, and G. H. Macuen.

Annotations.

APOPLEXY.

THIS is coming to be a frequent means of man's "taking off." In 1885 there were 1,003 deaths by it in Massachusetts, which brings it forward on the list of causes to the eleventh or twelfth for that year, a larger proportion than ever before.

In 1860 the deaths by this disease were 1.93 per 10,000 persons living; in 1870, 2.70; in 1880, 4.19; and in 1885, 5.12 per 10,000.

The two principal conditions favoring the rupture of the brain vessels are the degeneration of their coats and the increased pressure within them. Of the causes of degeneration, the chief by far is the habit of alcoholisms. The pressure is increased by increase of corpulency, which forces the blood into the vesels of the head without increasing their surrounding support, as is the case everywhere else in the body. To this corpulency full living, with less muscular labor among our people, largely contributes. Herein is suggested the proper remedy.

LONGEVITY.

DR. T. VENNER (1638), in the "Correct Way to a Long Life; or, a plain, Philosophical Demonstration of the Nature, Faculties, and Effects of all such things as by way of nourishments make for the preservation of health, with divers necessary dieteticall observations; as also of the true use and effects of Sleep, Exercise, Excretions and Perturbations, with just applications to every age, constitution of body, and time of yeere," says: "To procure vomiting, urine and sweat by meanes of drunken nesse, as it is wicked, so it is also beastly. Moreover, by a remedie of kind, the hurt is farre greater than the help; for drunkennesse, besides that it doth extinguish the light of the understanding, causeth the Apoplexie and such other like diseases of the braine, and often a sudden suffocation. In a word, it doth by much more hurt all the parts and faculties of the body than any way help by evacuation of superfluities, as the barbarous Authors pretend for their assertion; for infinite are the hurts that drunkennesse bringeth unto man's body."

Letters to the Editor.

LETTER FROM DR. GARRETSON.

AS a continuation of my letter of last week, I have to tell you that the name of the third hotel is discovered to be the "Social." The landlord, as some one has told me, came down here six years ago, to die of Bright's disease, or of some other "dis" that was interfering with a state of desirable "ease;" but so antidotal has the salt-laden air proved that he has *gone about*—that, I believe, is the nautical phrase—and has trimmed his sail for the other direction.

A cool looking house with a wide porch about it, painted of a color to agree with a cedar grove in which it is set down, is, under any circumstance, a refreshing kind of an oasis to come across; but when one is half-sizzled and fried from a morning spent in an unshaded boat upon an inlet, and when, added to this, he is parched out by thirst, and wilted by reason of not having had a mouthful to eat since four o'clock in the morning, the oasis is found a something for which an appreciative man thanks the gods.

There is, in the case of this particular oasis, another "but." Mr. Kroger—this is the landlord's name—is an entirely dependable-upon man, as regards a glass of cool Rochester, or, better than this perhaps, a cold looking, dust-covered bottle, with promise within it of Egg Harbor's famous Iolink, or Franklin, '73. This good man is no sciolist in the direction of his business. He knows just when to ice, and when and where frigidity is out of place. He knows better than yourself what it is that is to meet the indication.

Doctors are partial to billiards. The sanded room led to by the porch among the cedars furnishes a good table. It furnishes more than this; the blue fish and sheepshead stories are something only a little less than fabulous; while recitals as to wrecks upon this wild Barnegat coast—these not at all intensified or drawn out—cause you to look with admiration and profound respect upon the actors in them, as these stroll in and out and are pointed out to you.

From the stories, one goes naturally to look at the life-saving station. This is a convenient building, furnished with the necessary appliances, having its location directly at a point on the coast where an endless line of angry-looking breakers impress the beholder as being on the lookout for luckless ships. A more responsible, more dangerous, or a poorer paid situation is not to be imagined than this occupied by Captain Ridgway and his heroic men. To get out of bed at midnight, and to take to an open boat amid ice and driving waves and blackness, is something to put ordinary courage into a childish comparison. Last winter three of these noble men lost their lives.

The oldest inhabitant has become to everybody "Uncle Parker." He typifies the "lone fisherman," or the lone fisherman typifies him. Uncle Parker has a real fisherman's home at the side of a sand hill that separates Barnegat's famous flash light-house from the inlet. There, summer and winter, he has lived for thirty years, spending the one season in hooking sheephead, the other in shooting duck. It seems to be a lonely life, but the old man evidently enjoys it, as do a dozen or sixteen cats which are always about him, or in his lap when the "evening pipe is lighted." A good wife shares his discomforts and doubles his comforts.

The principal men of the place—being everybody's friend, and everybody being their friend—are Mr. Boice, proprietor of the Oceanic Hotel, and Mr. Butterworth, the postmaster and general merchant of the locality. These two gentlemen seem to have, as the meaning of their lives, the making of everybody comfortable. The Oceanic is a hotel numbering two hundred rooms. It is not at all the place to go to if dissipation, rather than health, is the object. The house is one of rambling architecture and proportion. The piazzas are broad and long, and take in a sight of everywhere. There is an entire absence of wearisome formality, but there is no want of that refinement which is the comfort of a gentleman's home.

The store and post-office is the place where everybody goes every day. A board walk leads from it in one direction to the beach, and in another to the hotels and cottages. Here one finds about everything one needs. Mr. Butterworth knows all about fishing lines, and is never without one to lend to the latest comer. He knows, too, about everything you may want to know as regards the whole Barnegat coast. Better even than these, he is a man who makes you feel that in troubling him you confer a

pleasure. If you, or any of your readers, come to this place, be sure and make the acquaintance of Mr. Boice and the postmaster.

"Are there any green-headed flies?" queries one of the readers of THE TIMES AND REGISTER through a letter.

Some.

Another of your subscribers asks about "mosquitoes."

Some, also.

"Is not the ride to Barnegat a long and dusty one?" inquires still a third, whose letter bears the Germantown postmark.

It takes two hours and a half to reach here from Philadelphia. If one cannot afford a dollar duster, a good time to come is after there has been a shower.

One asks what kind of a place it would be for a half dozen young doctors to club together and come to.

I would recommend it warmly. There are several small cottages furnished, and ready for such a company, that can be rented for a song. The bay will furnish the kind of food said to be good for making brains—a matter worthy of consideration by all of us who are of the cloth.

I am to give myself six weeks here. Three are already gone; although it seems to me that my flannel shirt took the place of my ironed one only yesterday. I do not know how my physician will esteem me to be looking when I get back to town; but I feel like cast iron—metaphorically.

BARNEGAT CITY, ON THE BEACH AROUND THE BLUFF.

INJURY TO NOSES.

THE following item in a daily paper attracted our attention, and a note to Dr. Saunders brought this description of a very interesting case:

"During a baseball game at Scranton, Ia., the other day, Everett Phillips was accidentally struck in the face with a bat, completely flattening his nose. The doctor pulled the member back into position, placed a tin cornucopia over it to keep it in form, and Everett is now known among his fellows as 'the man with the tin-nose.'"

The newspaper report is badly exaggerated. Young Phillips was struck with a *ball* on the right side of the nose, causing displacement of both nasal bones to the left. The articulation of each nasal bone with its fellow was intact, but disarticulation had obtained at every other point. Lateral pressure on left nasal bone rectified matters, and reduction was maintained by a strip of tin bent at the end, so that it did not slip when traction was made upon it; this was caught or placed over left side of nose, brought upward and outward over opposite brow, then well around the head, and kept in place by a roller bandage. The dressing was necessarily somewhat inconvenient, which hastened its removal in twenty four hours, but left a good result.

I wish this could have been of as much interest as the clipping has made it.

WM. J. SAUNDERS, M. D.

SCRANTON, IOWA.

OCEAN CITY.

IT pleased me much to read amongst your "Notes and Items" the fact that Drs. Kynett and Thatcher are at Ocean City.

Ocean City is a quiet summer-resort, just the place for a physician to enjoy himself. The bathing is far superior to that of Cape May or Atlantic City; and the sailing is spoken of by all as "grand." Crabbing, fishing, and gunning are much enjoyed by the "sports" of the profession could hear of this lovely resort. Once having visited it, they would continue to do so year after year. I am one who has visited Ocean City every summer for years.

WM. L. ROBINS, M.D.,
Resident Physician.

Hospital of the Good Samaritan,
BALTIMORE, MD.

CORRECTION.

PERMIT me to call your attention to the fact that your *retention* of the modern languages, French, German and Scandinavian, as *alternates* for the Latin, on page 564, is not correct.

You publish it just as the Committee reported it for the action of the College Convention. But, after considerable discussion by the Convention, all languages were stricken out except the *Latin*. Consequently, the Secretary's notices, in the *Boston Journal* and elsewhere, are correct. N. S. DAVIS.

CHICAGO, ILL.

QUERY.

WHAT per cent. of ruptured perineums is caused by the passing of the shoulders? Will some physician answer through this journal?

Paris Letter.

THE ACTION OF TESTICULAR LIQUIDS.

PROF. BROWN-SÉQUARD returns again to this subject, which he introduced a year ago to the attention of the Société de Biologie. We said at the time, that whatever Dr. Brown-Séquard proposed, deserved, at least, the serious consideration of scientific men, as his great merits as a physiologist commanded attention, no matter what the first impression was in regard to the matter at present in discussion. Dr. Brown-Séquard, in his present communication, very justly complains that he had been the subject of constant attacks, not only on the part of the daily press, (for whose opinion he does not care), but also in the scientific journals, who should, he says, discuss seriously the researches that he is making, which have no other end in view but to elucidate an important biological problem. These studies the doctor has continued, and they have been continued by others, and we shall try to give a short account of the results obtained: First of all, Brown-Séquard only said that when he made his first injections on himself, he saw a considerable augmentation in power in the flow of urine, and a regularity in defecation. With this, he noticed an increase of muscular force and a facility in doing intellectual work that was greater than it had been for years before. *This is all that he claimed.* The rest was the absurd exaggeration of newspapers.

After the first injections Dr. Brown-Séquard made on himself, he went to England for a while, and on his return here, during the past winter, he was taken ill with a cold, and went to Nice, to pass the worst of the bad weather, during all this he did not make any injections, but finding now that his health was not good he resolved to try them again; he, however, could not do this under the strict rules as to asepsia that he always surrounds himself with in his Paris laboratory, and, therefore, he thought of another

method, which would prevent the dangers of subcutaneous injections, which was *rectal injections*. The results obtained were just as complete and as satisfactory as by the hypodermic method. The injections must be well diluted and the quantity of testicular fluid employed must be greater, but the results are just as good. There is no danger of complications, unless the liquids are used too concentrated, when a slight irritation may be created. He injected, each time, the liquid obtained from the trituration of two testicles of guinea-pigs, diluted in fifty centigrammes (cubic) of water. That of other animals can be used (rabbits, dogs, sheep, or calves, etc.). Dr. Brown-Séquard again asserted that the effects produced on him were as stated, but he preferred to give the results of others' work. Leaving aside the rash and foolish attempts of all sorts of people, he only spoke of scientific men who tried it properly. In certain cases of cachexia from malarial fevers its results were wonderful, in others of ataxia locomotrice the amelioration had been remarkable in some cases, while in others no results had been obtained. Good effects were obtained in certain hemiplegias, consecutive to cerebral lesions. In certain dyspepsias, and in cases of incontinence of urine, the results were very evident. M. D'Arsonval had tried it on a celebrated French *savant*, who had been obliged to give up his work, owing to incontinence of urine, and curious shivering attacks, which came on without known reason. After the first injection all his troubles ceased like magic, and he was able to resume his studies. It is above all in anæmias, no matter what their cause, that Dr. Brown-Séquard finds the most use for his method, and he gives a remarkable case of a doctor whose method he does not approve of, but the demonstration of its wonderful efficiency he has seen. The doctor's wife, in question, was worn out after a metrorrhagia, that left her in a complete state of anæmia. He, believing in the virtue of testicular injections, had connection with his wife, and secured the sperm, which he injected under her skin a cubic centimeter at a time, with most wonderful results, and notwithstanding the fact that the metrorrhagia was repeated several times, the same treatment cured the patient every time.

This would seem to establish the fact that sperm has the same action as the testicular fluids of animals secured by trituration, but Dr. Brown-Séquard does not approve of this method, fearing septic complications from the injections. Most of the attempts made during last year were on persons really ill, but the real value of the method should be shown on old and weak persons, and Dr. Brown-Séquard, hopes that those who experiment with his method will publish their observations. In answer to the objection that was made against this system, that it acted by suggestion, Dr. Brown-Séquard does not deny the influences of suggestion, in all the affections of the nervous system, and he repeats that it is on the cerebro-spinal axis that the remedy acts, but he has made experiments to prove that it is not suggestion that acts. For instance, in certain cases several injections were needed before any effect was produced. In other cases colored water was used, telling the patient that a remarkable effect would be produced, but none was observed; but on the same patient being given an injection of the real matter, and being told it was nothing, a good effect was produced. Prof. Mairet, also injected the testicular fluids in idiots, who could not understand, and yet it was a success. The conclusion of the whole matter is the same as that announced by the eminent Professor, Brown Séquard, a year ago, that is, *that the testicular fluid has a powerful tonic influence on the system.*

ACCIDENTS FROM CHLOROFORM.

Dr. Laborde, who is the *chéf* of the physiological laboratory at the Paris Faculty of Medicine, has been making an interesting communication to the Academy of Medicine on the Preventive Treatment of Accidents that arise from Chloroformization. After having first shown that it is possible to prove by experiments on animals that there are two indications to act upon—one a primitive action, that is an irritant action, produced by the simple contact of the chloroform on the nasal mucous membrane (that is similar to that produced by the aspiration of ammonia), and that may produce nasal or laryngeal reflex action. The second phase is a reflex of arrest of the heart's action, that is produced by the intermediate action of the respiratory centers acting through the pneumogastric nerves on the heart. In the second place, the action of chloroform is toxic, and death is the consequence of an impregnation of all the tissues by the drug. This is explained by the works of Richet and Langlois, who have shown by experiments on animals that death has taken place because expiration in such cases is extremely difficult, and the products that should be carried off by expiration are not eliminated, but accumulate in the blood; and asphyxia is the result of the slightest obstacles to expiration, such as the tongue falling back, etc. There are also other cases of death under chloroform where the fatal accident comes on just at the moment when the surgeon is making his first cut. Here it is also a reflex, that results from the fact that sensibility is not yet abolished, and the nervous exitation produced by a section of the nerves in skin, causes a reflex action that produces an arrest of the heart's action. The clinical application of these facts is what most interests practical physicians, and M. Laborde gives this in his communication made to the academy yesterday. He says that the preventive treatment should obey two indications—1. To oppose the production of reflex action, of nasal or laryngeal origin; and 2. If such reflex action take place, to prevent their consequences by diminishing the irritability of the cardiac and respiratory centers of the medulla and decreasing the inhibiting power of the pneumogastric nerves on the heart.

For the first it has been proposed to use morphine, and it does diminish the peripheric sensibility, and prevents reflex syncope; but the clinicians fear that it predisposes to syncope, and M. Laborde has sough. for a drug that would not have any such actiont With M. Duquesnel he has obtained a special form of *narceine* that is perfectly soluble. (M. Laborde here showed a small bottle of liquid that contained a gramme of narceine in solution.) With this drug he has been able to procure a calm, tranquil sleep, without vomiting or consecutive torpor. In rabbits, one centigramme of this form of narceine has been enough, even when an inferior chloroform has been used. Another method used by M. Laborde is to brush the throat (pharynx and larynx) with a solution of cocaine, and thus prevent the dangerous reflex action produced by the irritating influence and the chloroform. As to diminishing the irritability of the pneumogastrics, two substances were used—one is curare, which, so far, cannot be used in man; but it is to be hoped that a curarine will be produced that can be used on human beings, before long. The second drug used was atropine, which acts well, but

needs to be given in doses that are not compatible with safety.

M. Laborde then spoke of the importance of dosing the chloroform by dropping a measured quantity, drop by drop, constantly, or by using Raphael Dubois' apparatus. A final precaution is to watch the respiration *every moment of the operation*, and the easiest way to do this is to use a pneumo-cardigraph machine, which waves a little flag, that gives the proper indication as the regular action of the respiration and the heart.

VACCINATION FROM GOATS.

The law making vaccination obligatory is becoming more and more urgent, and we must make provision for the day when it will be promulgated, when, in consequence, animal vaccine will everywhere take the place of vaccination from arm to arm. On this account no source from which vaccine can be derived should be neglected, above all, when it comes from an animal that is supposed to possess immunity from a number of the maladies that devastate humanity. This is the goat. M. Hervieux has lately read a paper before the Academy of Medicine showing that the goat can be inoculated with vaccine coming from the calf, or from human beings, and the effect of this inoculation is the same as that of the usual calf vaccine. Then, vaccination from the goat to a person's arm succeeds perfectly, on condition that the inoculation is made as soon as the vaccine is taken from the goat and the pustules have all the characters as the usual classical vaccine matter. The inoculation of goat vaccine that has been kept succeeds as well as the calf vaccine when it is done with the pulp, but not so well when done with the lymph. The vaccination of a person with goat's vaccine, that has already passed through the human body, gives results that represent the most fully-perfected type of the best vaccine matter. In one word, the animals of the goat species are just as apt to offer a good ground for the cultivation of vaccine matter as those of the bovine race, and the advantages are in favor of the goats.

THERAPEUTIC PROBLEMS.

Under this title Dr. Henri Huchard gives some interesting studies that are of great practical value. He supposes a case, of a regular variety, that is constantly seen in practice, and then gives the therapeutical indications and treatment for the case. We resume one of his last lessons of this kind.

Case I.—The patient has digestive troubles, with pyrosis, acid regurgitation, sometimes may vomit, and has gastric pain at night, which comes on two or three hours after eating and regularly. His appetite is good, sometimes very good; thirst constant. This state is often followed by loss of flesh, and may have for consequences stomach ulcer and dilatation of the stomach. If the gastric juice be analyzed, by the present method of sounding the stomach two hours after a trial meal, and the reactives of hydrochloric acid be used, it will be found that there is a hypersecretion of this acid; but, in the absence of this test, practical physicians can readily make the diagnosis by noting that the pain comes on at regular periods, at night, and two or three hours after dinner, and that food often stops it, and meat digestion will be found to proceed rapidly, while the starch foods take a long time to digest.

Diagnosis.—Hyperhydrochloric pseudo-gastralgia.

Therapeutic Indications.—There is here a false periodicity of pain, and quinine does more harm than good. The pain is not purely gastralgic, and therefore opium, etc., should not be given.

As the pain is due to the hyperacidity, give alkaline drugs in large doses to neutralize the acid, and institute the treatment as follows.

Hygienic Treatment.—Prevent all nervous causes, such as emotion, hard brain work, and any work just after meals. Suppress all alcohol, tea, coffee and spices, pickles and acids, salt meats, cheese, and game, as they call up a hypersecretion of gastric fluids. Also all pastry and fatty foods, and the starch foods, as they simply encumber the stomach and cause dilatation; fresh bread is, for the same reason, forbidden. Give milk in small doses, to which add Vichy water. Hashed meat and eggs are useful, as the albumen neutralizes the excess of HCl. They should chew well and for a long time all food, and take a light meal at night, and a small one during the night. They might have five meals, as follows: Morning, glass of milk; 11 A.M., breakfast of hashed meat and eggs and stale or toasted bread; 3. P.M., glass of milk; 7 P.M., light dinner, and during night one or more glasses of milk.

Local Treatment.—Neutralize the acidity by large doses of bicarbonate of soda (ten to twenty grammes a day), or magnesia that is decarbonized acts very well. The alkaline should be given away from meals, when the pain is most intense. Large doses must be insisted upon, as small ones only increase the acidity. As bicarb. soda is soluble, it is sometimes good to combine prepared chalk with the soda to form a protecting coat on the mucous membrane of the stomach. Equal parts may be prescribed. Intestinal atony should be combated by the usual means, and stomach washing out may be performed with alkaline liquids from time to time.

RESEMBLANCE BETWEEN FATIGUE AND HYSTERIA.

M. Féré calls attention to the fact that there is considerable resemblance between ordinary muscular fatigue and hysteria, and it is curious, when one thinks of it, how often contractions are experienced when one is fatigued, and irritability and a host of other symptoms that are seen in hysteria; and this has a practical bearing in that it gives an important therapeutical indication for treatment of hysterical states by complete rest.

TREATMENT OF ANASARCA BY THEOBROMINE.

This substance has caused considerable talk lately in Paris, owing to the trenchant Prof. G. Sée having stated that, "Notwithstanding the assertion of a German druggist, that salicylate of theobromine is more soluble than theobromine, I declare that it is insoluble." This called forth a letter from Dr. Gram, of Copenhagen, to the effect that he had said it was soluble, and that it was so while it contained fifty per cent. of theobromine, and it was very useful. It may be given in wafers, as follows:

℞.—Salicylate of sodii et theobromine, 3 grammes.
Divide in cachets No. 5.
S.—Give one wafer every three hours, and follow it by a drink of water or warm milk.

or, it may be given in solution, as follows:

℞.—Salicylate sodii et theobromine . 3 grammes.
Syr. bitter orange peel . . . . 30 "
Aquæ distill. . . . . 50 "
M. S.—Give a tablespoonful just before each meal.

THOMAS LINN, M.D.

LOOK at our Five-dollar Offers.

Book Reviews.

NEURALGIA. By E. P. HURD, M.D. 1890. Geo. S. Davis, Detroit, Mich. Cloth, 50c.; paper, 25c. Pp. 153.

Neuralgia is a subject of great practical interest; as one may carry on a pretty large practice for many years without seeing a case of locomotor ataxy, but he can't practise a week without seeing neuralgia. When Anstie's book appeared, it gave so complete a summary of the subject, that anything following it must almost necessarily be built upon that as a foundation. Dr. Hurd has done this, and has paid special attention to the modern French clinicians Germain Sée, Dujardin-Beaumetz, Jaccoud, etc. While there is much material of value in the book, it should have been twice as large to do the subject justice. For instance, Anstie's admirable explanation of the points of Valleix, and their appearance late in the course of an inveterate neuralgia, is one of the things which one never forgets; while the simple statement that some good observers have failed to find these points leaves only an impression of uncertainty upon the mind. Brevity should never be carried so far as to sacrifice the sense.

MINERAL SPRINGS AND HEALTH RESORTS OF CALIFORNIA; with a complete chemical analysis of every important mineral water in the world. Illustrated. A Prize Essay. Annual Prize of the Medical Society of the State of California, Awarded April 20, 1889. By WINSLOW ANDERSON, M.D. San Francisco. The Bancroft Company, Publishers, 1890. Price, $1.50.

After a very good therapeutic index, the book opens with an introductory chapter on mineral springs, their varieties, uses, etc., and baths. He then takes up the California springs, in alphabetical order, giving analyses and other information concerning them. This occupies two hundred and three pages. It is not by any means complete, the majority of the springs named being merely mentioned. Many analyses are given, however, enough to justify the author's assertion that in California nearly every medicinal spring of note may be paralleled. The next seventy-two pages are occupied with analyses of the more important mineral waters of other States and of Europe. Then follow short chapters on the history of California, its climate, and a comparison with corresponding latitudes in the Old World. The book is valuable, and very interesting reading; the style is easy and discursive. This is the first specimen of the publisher's work we have seen; and the paper, typography, and binding are excellent. The illustrations are especially good; while the proof-reading could be improved.

Pamphlets.

Aus der gynækologischen Abtheilung des St. Francis Hospitals in New York. Die Laparatomien des Jahres 1889. Von Dr. George M. Edebohls, New York.

McGill University Annual Calendar. Faculty of Medicine. Fifty-eighth Session, 1890–'91. Montreal, 1890.

The Medical and Dental Register Directory and Intelligencer. Pennsylvania and Delaware. Wm. B. Atkinson, A.M., M.D., Editor. Philadelphia, George Keil, 1214–20 Filbert street, 1890.

Fifth Annual Report of the State Board of Health of the State of Maine. Augusta, 1890.

To fumigate a room slowly pour vinegar on a hot iron shovel. The doors and windows should be open.

The Medical Digest.

FISSURED NIPPLES can be protected from irritation during the nursing period by painting over the fissure a solution of rubber and chloroform.

CAUSES OF INSOMNIA.—These are arranged as follows by Folsom (*Boston Med. and Surg. Jour.*):

1. Perverse habit of sleeplessness.
2. External causes acting through the senses.
3. Excessive cerebration.
4. Reflex, especially indigestion; then genito-urinary.
5. Traumatisms; physical, psychic, or both.
6. Auto-toxemia; from syphilis, constipation, gout, etc., and habitual excess in coffee or drugs.
7. Exhaustion from disease, innutrition, or excess.
8. Vascular derangements; hepatic, cardiac, renal.
9. Vaso-motor.
10. Neurasthenia; causing hallucinations or astigmatism.
11. Neuropathic temperament.
12. Forerunner of mental disease; hysteria, hypochondria, and organic cerebral or spinal affections.
13. A form of insanity; an interchangeable psycho-neurosis.

AMATEUR DOCTORING.—Tuesday's *Globe* reports a case of a boy who had a fall and injured his knee. The sagacious parents of the lad, instead of seeking treatment from a reliable source, resorted to a *friend* who had a "reputation for medical skill." Alas, for bubble reputation. The boy died. Moral: The mere inunction of oil is not an absolute cure for compound fracture of the tibia. The *Globe*, in alluding to the case, remarks upon the folly of persons who put their trust in the medical advice supplied gratis through the columns of a newspaper, and concludes that even supposing the medical oracle be qualified to treat persons in his surgery, the class of persons who apply for information in this manner have not an exact, if graphic, method of description, the result being misleading, and the treatment often exactly wrong. But, of course, no one but the merest empiric would indulge in any such a system, and those who are stupid enough to seek the proffered advice deserve any fate that may befall them.—*Hospital Gazette.*

HINTS TO THE UNFORTUNATE.—A few suggestions, culled from accounts in the daily press, of cases of "accidental death" during the past week, may prove of service to those who are not ingenious enough to think of them for themselves: (1) Mix some coarse flour and strychnine to kill the rats with, then place the mixture in a jar, similar and as near as possible to that containing the family oatmeal. Prepare to shed this mortal coil! (2) Place some laudanum in an empty medicine bottle, and stand it alongside a bottle of physic on a table by your bedside; take a dose from the nearest bottle, in the dark; ten chances to one it's the laudanum. (3) Pour some carbolic acid into a beer-bottle, cork it, and put it aside in a cool spot; the next person who comes along with "a mouth on him," will find it a vast improvement on common or ginger beer. (4) Smear a piece of bread with phosphorus paste (rough on rats) and leave it in a cupboard well within reach of marauding youngsters; if their lives are insured, you will have no reason to regret the experiment.

—*Hospital Gazette.*

Medical News and Miscellany.

THE Roosevelt Hospital, New York, is being repainted.

SEVEN mad dogs were killed in New York last Saturday.

DR. THOMAS BIDDLE expects to spend the summer at Atlantic City.

AN epidemic resembling yellow fever is raging at Belize, Honduras.

DR. SALSER, of Philadelphia, has been staying at the Dennis, Atlantic City.

THE American Andrological and Syphilographical Association is the very newest.

DRS. ELDREDGE PRICE AND B. B. WILSON are frequent visitors at Longport, N. J.

KUESTNER says that the best female catheter is a simple glass tube, open at the ends.

DR. GEORGE F. KRETZ is the handsomest member of the Onanondo Club, in New York.

OXFORD University has decided to admit women to the examinations for the degree of M. B.

THE University of Louvain has added to the medical curriculum a course on medical ethics.

EVIDENCE accumulates as to the conveyance of diphtheria through the water used for drinking.

DR. A. P. BEALER has returned from the sea-side, and will return later for the balance of the season.

DR. D. O. LEWIS, of the Naval Hospital, Washington, has registered at the Star Villa, Cape May.

DR. W. H. BIRNEY, of West Philadelphia, is spending a few weeks at the Cape House, Cape May.

THE *Occidental Medical Times* reports the death of a child over three years old, from the bite of a tarantula.

DR. AND MRS. W. W. WEAVER, of Fortieth street and Woodland avenue, are visiting friends in Hanover.

DR. C. A. FRAME has been mentioned as a compromise candidate for the legislative nomination at Manayunk.

DR. JUDGE, of Philadelphia, went on a fishing excursion to Anglesea lately, and returned with several hundred fish.

DR. JOHN C. HALL, of the Germantown Insane Asylum, is taking a well-earned rest at the Irvington, Atlantic City.

THOUGH "Greenland's icy mountains" have been known a long time, they have never been boomed as a summer resort.

MEDINA reports some very obstinate cases of ulcerative keratitis which yielded to collyria of antipyrin in distilled water.

THE increase of insanity in Berlin has compelled the erection of a new asylum, to accommodate one thousand patients.

DR. JOHN B. SHOBER has been appointed one of the chiefs of the Surgical Department of the University Hospital Dispensary.

FOR metrorrhagia, Lawrence recommends plugging the cervix uteri with iodoform cotton, as simple and devoid of danger and pain.

A FEW cases of cholera continue to be reported in Valencia. There were three new cases and three deaths in Gandia, last week.

DR. EMILY HUNT, of the Philadelphia Hospital, has gone to Lansdowne for her vacation, to the home of her father, Dr. J. G. Hunt.

DR. ROSA KERSCHBAUMER is the first woman licensed to practice medicine in Austria. She is said to be an uncommonly able oculist.

DR. I. N. BROMELL and Mrs. Bromell, of North Fortieth street, will spend a portion of their vacation in Lancaster County and Atlantic City.

THE New York Academy of Medicine, 12 West Thirty first street, New York City, has removed to 17, 19 and 21 West Forty-third street, New York.

DR. BLOOMER, of the State Fencibles, has resigned his position as assistant-surgeon. Dr. Fitzpatrick, an up-town physician, is mentioned as his successor.

WE are still short of issues for August 10 and 17, 1889, and February 1 and March 1, 1890; to any one sending one of the above we still offer a dermatograph.

DR. CHARLES MEIGS WILSON spent the 4th of July at Atlantic City, and also stayed over Sunday; he returned to Philadelphia Monday morning, on the 7.10 train.

DR. FORMAD, the Coroner's physician, sailed from New York for Europe, with his wife, on the steamer Nevada, last week. He will be on the Continent for three months.

A RABID dog in England bit four persons. Three were treated by Pasteur and remain well; the fourth was treated by a constable who had a "remedy," and died of rabies.

H. F. BRADBURY, "Dean of Trinity University in Vermont," has been indicted by the Grand Jury of the United States District Court, Boston, for issuing bogus diplomas.

UNLOOKED-FOR success encourages expectation, and we are strongly of the opinion that too much is expected of electricity in the treatment of diseases of women.—*Lancet.*

CHOLERA is reported from Narbonne. *Le Petit Journal* states that several cases, one of which has resulted fatally, have occurred in the city of Narbonne, Department of Aude.

DR. HENRY M. WETHERILL, Secretary of the State Board of Lunacy, has returned from making a portion of his annual inspection of the insane asylums and hospitals throughout the State.

IN Egypt foundlings are placed in the charge of wet-nurses, who are inspected weekly and fined if either child or nurse is not well and in good condition. The plan is said to work well.

THE *Pacific Medical Journal* reports a case in which a man received a knife-wound penetrating the heart, continued the fight some time, and ran about one hundred yards before he fell, and died.

AN elderly married couple, who had long lived childless, journeyed to Germany, where, to their great surprise, the wife became a mother.

This item will doubtless have the effect of diverting the stream of travel from Germany to other lands less famed for germs.

DR. MARTIN, New York Board of Health chemist, decides that the sickness among those who ate Brinkman's ice cream was caused by the fermentation of old cream that had been left in the freezer.

TO REMOVE WARTS.—According to the American *Therapeutic Gazette*, castor oil, constantly applied for two to four or six weeks—that is once a day—has not failed in any case of any size or long standing.

A SENSATION has been created in Vienne by the discovery that the waters of the river Leitha, from Pottendorf to Landegg, are poisonous. Bathers have contracted pustular eruptions covering the entire body.

THE authorities of San Mateo County, California, are trying to make Dr. Whitwell put an eight-foot wall around his inebriate hospital and keep a guard at the gates. Their right to do so is to be tested in the courts.

DR. PORTER, of Fort Wayne, trephined a lad for epilepsy July 2. Considerable fluid was evacuated, and at last accounts the patient was doing well. The case was a severe one, from twenty-five to fifty spasms occurring daily.

SEVEN years' apprenticeship is required in England for the evolution of a journeyman plumber; and how any one can spend so long a time and learn so little is an inscrutable mystery to every one who subsequently employs him.

THE English scientific world is very much exercised over an invention purporting to be a remarkable instrument solving the problem of visual telegraphy. It is the joint invention of Prof. Hughes, F.R.S., and W. H. Preece, F.R.S., and is a fraud.

JACQUES, the French soldier, who is emulating Succi, the Italian faster, at the Aquarium, has completed the first two weeks of his proposed forty-two days' abstinence from food. He has lost sixteen pounds and five ounces. He is well, and confident of success.

THE outbreak of cholera in Spain has aroused the *British Medical Journal* to call for an improvement of London's water supply. The journal states that the last cholera epidemic cost London six thousand lives, and was traced to the pollution of the river Lee by one family.

JAMES MELVIN, a war veteran, portions of whose body had become ossified within a few years, and for whom a pension of $100 a month specially passed Congress last month, died, on Saturday, in Concord, Massachusetts. His suffering for several years past were excruciating.

DR. GREGORY HOVNANIAN, of Philadelphia, a native of Armenia, is at the Howell House, Asbury Park, where he will remain until August, when he will take the position of resident physician in the Blockley Hospital, at Philadelphia. He is a graduate of the Medico-Chirurgical College.

A DANGEROUS MINERAL WATER.—William T. Jeffries and S. S. Jordan have filed a bill in equity in the United States Circuit Court against the Geneva Magnetic Water Company, of Washington, D. C., W. L. Cresson, of Norristown, and Julius Hugle and J. C. Ergood, of Washington, to recover moneys in an odd business transaction. They purchased rights for the sale of the magnetic water in certain counties, understanding that it contained no organic matter, and, as they claim, have since discovered that it is injurious.

DR. BRUSTAR has reported to the Board of Health that 148 vessels, containing 2,822 passengers, were passed by him during the month of June. It will require $126,684 to conduct the Board of Health in 1891, according to the estimate of the Finance Committee. The revenue from all sources is estimated at $43,850.

DR. HENRY H. LONGSTREET, one of the oldest and most prominent physicians in Burlington county, died, last Sunday, after a brief illness. He had been in failing health for more than a year past, but had been confined to his home only a few days prior to his death. He was born in Monmouth county, New Jersey, January 11, 1819.

THE daughter of a prominent physician was admitted to the Pasteur Institute in New York last Sunday. She was bitten on the hand some time ago by a pet dog. The Cincinnati man, who was under treatment by Dr. Gibier for the past three weeks, was discharged last Sunday in perfect health. All the patients now under treatment are doing well.

PHILADELPHIA'S MORTALITY.—A record of interments in this city during the past six months: The weekly reports of interments in this city, published in THE TIMES AND REGISTER from week to week, have been collated, and the following tables have been prepared to contrast the number of interments during the past six months with corresponding periods of 1888 and 1889:

Year.	1888.	1889.	1890.
INTERMENTS.	10,509	10,336	11,749
PRINCIPAL CAUSES OF DEATH.			
Alcoholism	43	31	43
Apoplexy	259	245	238
Bright's disease	225	225	238
Cancers	247	263	264
Casualties	187	169	182
Congestion of the brain	178	180	155
" " lungs	133	128	147
Consumption of the lungs	1,491	1,345	1,552
Convulsions	438	468	441
Croup	129	168	231
Cholera infantum	104	199	261
Debility	235	298	265
Diarrhœa	79	42	54
Diphtheria	170	176	250
Drowned	41	46	45
Dropsy	139	168	91
Dysentery	21	12	24
Diseases of the heart	441	400	612
Fever—typhoid	318	351	391
" scarlet	97	195	74
Inflammation of the brain	379	389	409
" " stomach and bowels	323	310	344
" " lungs	1,048	1,005	1,296
Influenza	.....	.....	146
Inanition	238	235	252
Marasmus	346	301	367
Measles	10	62	101
Old age	570	428	479
Paralysis	271	197	214
Suicide	48	54	49
Teething	36	48	63
Tumors	51	43	54
Whooping-cough	60	84	71
AGES.			
Under 1 year	2,214	2,343	2,576
Between 1 and 2	514	595	693
" 2 " 5	577	656	724
" 5 " 10	281	337	334
" 10 " 15	176	269	166
" 15 " 20	288	341	335
" 20 " 30	1,110	997	1,216
" 30 " 40	1,190	957	1,112
" 40 " 50	978	870	1,055
" 50 " 60	933	827	950
" 60 " 70	1,030	953	1,112
" 70 " 80	875	791	911
" 80 " 90	427	429	476
" 90 " 100	60	59	83
" 100 " 110	5	2	6
Males	5,504	5,271	6,007
Females	5,106	5,065	5,742
Boys	2,220	2,357	2,538
Girls	1,881	2,094	2,282
Born in the United States	7,576	7,616	8,719
" foreign countries	2,606	2,232	2,434
Birth place unknown	417	398	396
People of color	562	592	634

W. E. CHENERY, son of Dr. E. Chenery, of Boston, took his medical degree at Harvard on the 25th ult., and at once left for Europe, where he will spend the summer in visiting hospitals, studying, and observation. He has a sister, Hattie M., an art teacher, who has been abroad for more than a year in pursuit of her studies, with whom he hopes to return later in the fall.

JOHN WARSTER, of 1624 Dickinson street, Philadelphia, was drowned last Sunday at Atlantic City. Four doctors tried in vain to restore him to consciousness after rescuing him from the water. In these cases far more could be done if people would not crowd around the rescued. Fully 1,000 people were seen around this man by one of the publishers of this journal, so that it was almost impossible for air to get to him.

THE Health Department of New York has appointed fifty physicians of the summer corps, and on Wednesday they began their work among the poor of the tenements. Of the inestimable value of their work, which will continue during July and August, the following figures from last year will convey some idea: 264,000 families were visited, 16,148 sick people were prescribed for, 12,000 tickets for free excursions were distributed, and 50,000 circulars, containing simple instructions for the care of children during the hot months, were given away. And this work was chiefly among those unable, through poverty, to secure medical treatment and medicine, which the Board of Health furnished free. Through the co operation of the King's Daughters this season, even more will be completed than was last year.

THE CITY'S HEALTH.—During the week ending July 5, the causes of death reported were as follows:

Cholera infantum	141
Phthisis	67
Marasmus	44
Heart disease	28
Inanition	26
Old age	26
Inflammation of brain	22
Convulsions	20
Inflammation of stomach and bowels	19
Bright's disease	16
Debility	15
Typhoid fever	13
Congestion of the brain	12
Pneumonia	12
Cancer	8
Diarrhœa	8
Diphtheria	8
Dysentery	8
Bronchitis	8
Casualties	7
Teething	7
Apoplexy	6
Peritonitis	6
Paralysis	6
Cyanosis	5
Cirrhosis	4
Whooping-cough	4
Alcoholism	3
Congestion of lungs	3
Diabetes	3
Dropsy	3
Drowned	3
Epilepsy	3
Insanity	3
Obstruction of bowels	3
Softening of brain	3
Other causes	50
Total	623
Adults	253
Minors	370
Under one year	276
Total last week	526
Same week in 1889	422

DURING twenty years 3,503 prostitutes were registered at Brussels. Of these, when asked their reason for living in this way, 1,523 attributed it to poverty, 1,118 to sexual appetite, 420 attributed their fall to bad company, 316 tired of hard work and little pay, 101 abandoned by lovers, 10 quarreled with parents, 7 left by husbands, 4 quarreled with guardians, 3 had family quarrels, 2 were compelled to prostitute themselves by their husbands, and 1 by her parents. Nearly all said they would be only too glad to work if work could be secured. One of the greatest difficulties was that the markets were flooded with the products of convents, which undersold the work of women who had to support themselves. The strict regulation of prostitution exercised a wholesome effect in deterring women from entering this life. Poverty in Belgium renders prostitution a hard necessity; the alternative being starvation.

To Contributors and Correspondents.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from June 15, 1890, to June 28, 1890.

By direction of the Secretary of War, leave of absence for two months, to take effect August 6, 1890, is granted First Lieutenant William N. Suter, Assistant-Surgeon. Par. 3, S. O. 149, A. G. O., June 26, 1890.

Changes in the Medical Corps of the U. S. Navy for the week ending June 28, 1890.

John E. Page; Berryville, Va.; Robert M. Kennedy, Pottsville, Pa.; James M. Whitfield, Richmond, Va.; Lewis H. Stone, Litchfield, Conn.—commissioned Assistant-Surgeons in the Navy.

ATLEE, LOUIS W., Assistant-Surgeon. Detached from the U. S. S "Marion," and granted three months' leave.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service for the three weeks ending June 21, 1890.

GASSAWAY, J. M., Surgeon. When relieved at Cairo, Ill., to proceed to New Orleans, La., and assume command of the service at that station, June 4, 1890.

STONER, G. W., Surgeon. Granted leave of absence for three days, June 18, 1890.

WASDIN, EUGENE, Passed Assistant Surgeon. Granted leave of absence for fourteen days, June 5 and 10, 1890.

WHITE, J. H., Passed Assistant-Surgeon. To proceed to Savannah, Ga., on special duty, June 9, 1890.

HEATH, F. C., Assistant-Surgeon. Granted leave of absence for fifty-eight days, June 10, 1890.

MAGRUDER, G. M., Assistant-Surgeon. Granted leave of absence for twenty days, June 2, 1890. Ordered to examination for promotion, June 5, 1890.

WOODWARD, R. M., Assistant-Surgeon. Relieved from duty at Chicago, Ill., to assume command of service at Cairo, Ill., June 4, 1890.

CONDICT, A. W., Assistant-Surgeon. Upon expiration of leave of absence, to report to Medical officer in command at Chicago, Ill., for duty, June 4, 1890.

RESIGNATION.

HEATH, F. C., Assistant-Surgeon. Resignation accepted by the President (to take effect Aug. 31, 1890), June 10, 1890.

Medical Index.

A weekly list of the more important and practical articles appearing in the contemporary foreign and domestic medical journals.

Physiologische Bemerkungen über die Hypertrophie und Dilation des Herzens, Frey. Deutsches Archiv f. Klin. Med.
Perinterine and perityphlitic abscesses, Mayo. Northw. Lanc.
Prevention of puerperal fever, Britton. Canada Lancet.
Paralysis of the superior oblique, cured by tenotomy of the superior rectus of the same eye, Webster. Med. Rec.
Prophylaxie de la syphilis et de la prostitution, Mericourt. Bulletin de l'Academie de Med.
Posterior displacements of uterus, Boldt. Amer. Jour. Obst.
Prolapse of the female urethra, and true cystocele or vesico-vaginal hernia, Munde. *Ibid.*
Pleuritic effusions, Atkins. Amer. Pract. and News.
Pyosalpynx, intest. laceration, omental grafts, Carpenter. *Ib.*
Phthisis pulmonalis, Robison. The Med. Age.
Précis of operations performed in wards of the first surgeon Med. Coll. Hosp. during year 1890, McLeod. Ind. Med. Gaz.
Pleuresie interlobaire gauche suppurée, Letulle. La Med. Mod.
Points in the study of inebriety, Field. N. Y. Med. Jour.
Poisoning by oil of cedar, Ellison. Therap. Gaz.
Physician on the witness stand, Hammond. St. Louis Cour.
Pruritis following an electric shock, Grindon. *Ibid.*
Resection of cæcum for carcinoma, Senn. J. Am. Med. Ass'n.
Rapid dilation of the uterus, Carpenter. Cleveland Med. Gaz.
Removal of a fibrous polypus from the base of skull. Girdlestone. Austral. Med. Jour.
Railway sanitation, Conn. Jour. Nat. Ass'n Railw. Surg.
Ricerche sulla vitalita del virus tetanico nelle acque, Schwarz. La Rif. Med.
Retinal detachments injection of iodine into vitreous, Phillips. Atlanta Med. Surg. Jour.
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PAGE

ORIGINAL ARTICLES.

THE RELATION OF BACTERIA TO PRACTCAL SURGERY. By John B. Roberts, M.D. - - 49
A CONTRIBUTION TO THE ETIOLOGY OF DIPHTHERIA. By E. Klein, M.D., F.R.S., 53
OUR INSANE HOSPITALS. By A. F. Myers, M.D., Blooming Glen, Pa. - - - - - - - 55

THE POLYCLINIC.

PHILADELPHIA HOSPITAL:
Endocarditis. *Davis* - - - - - - - - - 56
Pneumonia. *Davis* - - - - - - - - - 56
Acute Phthisis. *Davis* - - - - - - - - 57
MEDICO-CHIRURGICAL COLLEGE AND HOSPITAL:
First Five Years' Report of the Eye Clinic. *Keyser* - - - - - - - - - - 57

EDITORIALS.

SPLIT IN THE ECLECTIC RANKS - - - - - 58

ANNOTATIONS.

Treatment of Gout - - - - - - - - - - 58
Closing up of Wingohocking Creek - - - 59
Spasmodic Torticollis - - - - - - - - - 59
Strophanthus - - - - - - - - - - - - 59

LETTERS TO THE EDITOR.

Coal Oil. *Chaffee* - - - - - - - - - - 59
Honor Where Due. *Pennell* - - - - - - 59

BOOK REVIEWS.

How to Preserve Health. *Barkham* - - - 59
Transactions of the Southern Surgical and Gynecological Association - - - - - - 59
Rheumatism and Gout. *Satterlee* - - - - 59
Zeitschrift für Physiologische Chemie - - - 60

PAMPHLETS - - - - - - - - - - - 60

THE MEDICAL DIGEST.

Pichi. *Rusby* - - - - - - - - - - - - 57
Intestinal Calculus. *Loviot* - - - - - - 60
Analysis of Armour's Meat. *Brit. Med. Jour.* - - - - - - - - - - - - - 60
Hypertrophy of the Schneiderian Membrane. *Potter* - - - - - - - - - - - 60
Hematuria. *Huzza* - - - - - - - - - - 60
Birch Beer. *Pharm. Era* - - - - - - - - 60

PAGE

Abscesses on the Ear. *Beach* - - - - - - 60
Chromic Acid in Cysts. *Woakes* - - - - - 60
Aggravated Hemorrhoids. *Pilcher* - - - 61
Use of Hypnotics. *Folsom* - - - - - - - 61
Summer Drinks in India. *Med. Rec.* - - - 61
Ovarian Herniæ, Their Causes, Symptoms, and Treatment. *Madden* - - - - - - - 61
Plaster Splints for Fractures of the Leg. *Foulerton* - - - - - - - - - - - - - 62
SPANISH TRANSLATIONS. *Hutchinson* - - 62
Illustrations of Some Less known Forms of Peripheral Neuritis, Especially Alcoholic Monoplegia, and Diabetic Neuritis. *Buzzard* - - - - - - - - - - - - - - - 63
Tuberculous Cattle - - - - - - - - - - 66
Potts' Spinal Caries. *Ridlon* - - - - - - 66
On the Strumous Diseases of Childhood and Their Relation to Tubercle. *Madden* 67
MEDICAL NEWS AND MISCELLANY, 67
ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - - 71
MEDICAL INDEX - - - - - - - - - - 72
NOTES AND ITEMS - - - - - - - iv, xiv

Original Articles.

THE RELATION OF BACTERIA TO PRACTICAL SURGERY.[1]

BY JOHN B. ROBERTS, M.D.

THE revolution which has occurred in practical surgery since the discovery of the relation of micro-organisms to the complications occurring in wounds, has caused me to take up this subject for discussion. Although many of my hearers may be familiar with the germ theory of disease, it is possible that it may interest some to have put before them in a short address a few points in bacteriology, which are of value to the practical surgeon.

It must be remembered that the groups of symptoms which were formerly classed under the heads of "inflammatory fever," "symptomatic fever," "traumatic fever," "hectic fever," and similar terms, varying in name with the surgeon using them, or with the location of the disease, are now known to be due to the invasion of the wound by microscopic plants. These bacteria, after entering the blood current at the wound, multiply with such prodigious rapidity that the whole system gives evidence of their existence. Suppuration of wounds is undoubtedly due to these organisms, as is tubercular disease, whether of surgical or medical character. Tetanus, erysipelas, and many other surgical conditions have been almost proved to be the result of infection by similar microscopic plants, which, though acting in the same way, have varying forms and life histories.

A distinction must be made between the "yeast-plants," one of which produces thrush, and the "mould-plants," the existence of some of which, as parasites in the skin, give rise to certain cutaneous diseases. These two classes of vegetable parasites are foreign to the present topic, which is surgery, and I shall, therefore, confine my remarks to that group of vegetable parasites to which the term bacteria has been given. These are the micro organisms whose activities and method of growth particularly concerns the surgeon.

The individual plants are so minute that it takes in the neighborhood of ten or fifteen hundred of them grouped together to cover a spot as large as the full stop, or period, used in punctuating an ordinary newspaper. The rough estimate applies to the globular and egg-shaped bacteria, to which is given the name "coccus" (pleural, cocci). The cane or rod-shaped bacteria are rather larger plants. Fifteen hundred of them placed end to end would stretch across the head of a pin. Because of the resemblance of these latter to a walking-stick, they have been termed "bacillus" (pleural, bacilli). The bacteria most interesting to the surgeon belong to the cocci and bacilli. There are other forms which bacteriologists have dubbed with similar descriptive names, but they are more interesting to the physician than the surgeon. Many micro-organisms, whether cocci, bacilli, or of other shapes, are harmless; hence they are called non-pathogenic, to distinguish them from the disease-producing or pathogenic germs.

As many trees have the same shape and a similar method of growing, but bear different fruits, in one edible and in another poisonous, so two bacteria may look alike, to the microscopist's eye, and grow much in the same way; but one will cause no disease, while the other will produce tuberculosis of the lungs or brain.

Many scores of bacteria have been, by patient

[1] Read at the meeting of the Medical Society of the State of Pennsylvania, held at Pittsburg, Pa., June 11, 1890.

study, differentiated from their fellows and given distinctive names. Their nomenclature corresponds in classification and arrangement with the nomenclature adopted in other departments of botany. Thus we have the pus causing chain-coccus (streptococcus pyogenes), so called because it is globular in shape, because it grows with the individual plants attached to each other, or arranged in a row like a chain of beads on a string, and because it produces pus. In a similar way we have the pus-causing grape coccus of a golden color (staphylococcus pyogenes aureus). It grows with the individual plants arranged somewhat after the manner of a bunch of grapes, and when millions of them are collected together the mass has a golden yellow hue. Again, we have the bacillus tuberculosis, the rod-shaped plant, which is known to cause tuberculosis of the lungs, joints, brain, etc.

It is hardly astonishing that these fruitful sources of disease have so long remained undetected when their microscopic size is borne in mind. That some of them do cause disease is indisputable, since bacterologists have, by their watchful and careful methods, separated a single plant from its surroundings and congeners, planted it free from all contamination, and observed it produce an infinitesimal brood of its own kind. Animals and patients inoculated with the plant thus cultivated have rapidly become subjects of the special disease which the particular plant was supposed to produce. The difficulty of such investigation becomes apparent when it is remembered that under the microscope many of these forms of vegetable life are identical in appearance, and that it is only by observing their growth, when cultivated in the proper soil, that they can be distinguished from each other. In certain cases it is quite difficult to distingush them by the physical appearances produced during their growth. Then, it is only after an animal has been inoculated with them that the individual parasite can be accurately recognized and called by name. It is known, then, by the results it is capable of producing.

The various forms of bacteria are recognized, as I have said, by their method of growth, and by their shape. Another means of recognition is their individual peculiarity of taking certain dyes, so that special plants can be recognized under the microscope by the color given to them, which they refuse to give up when treated with chemical substances which remove these stains from, or bleach all the other tissues which, at first, were similarly stained.

The similarity between bacteria and the ordinary plants, with which florists are familiar, is indeed remarkable. Bacteria grow in animal and other albuminous fluids, and it is just as essential for them to have a suitable soil as it is for the corn or wheat that the farmer plants in his field. By altering the character of the albuminous fluid in which the microorganism finds sustenance, these small plants can be given a vigorous growth, or may be actually starved to death. The farmer knows that it is impossible for him to grow the same crop year after year in the same field, and he is, therefore, compelled to rotate his crops. So is it with these microscopic plants which we are considering. After a time, the culture fluid or soil becomes so exhausted of its needed constituents by the immense number of plants that have grown in it that it is unfit for their life and development. Then this particular form will no longer thrive, but some other form of bacterium may find in it the properties required for functional activity, and grow vigorously. It is probably that this exhaustion or absence of proper soil is an important agent in protecting man against continuous sickness, due to infection with bacteria. The ever-present bacteria often gains access to man's blood through external wounds, or the lungs and digestive tract; but unless a soil suited for their development is found in his fluids the plants will not grow. If they do not grow, and increase in numbers, they can do little harm.

Again, there are certain bacteria which are so antagonistic to each other that it is impossible to make them grow in company, or to co-exist in the blood of the same individual. For example, an animal inoculated with erysipelas germs cannot be successfully inoculated immediately afterward with the germs of malignant pustule. On the other hand, however, there are some micro-organisms which flourish luxuriantly when planted together in the same fluid, somewhat after the manner of pumpkins and Indian corn growing between the same fence rails. Others seem unwilling to grow alone, and only flourish when planted along with another germ. The antagonism between two bacteria is illustrated by the impossibility of having a good crop of grain in a field over-run with daisies. It is very evident, therefore that bacteriology is a branch of botany, and that nature shows the same tendencies in these minute plants as it does in the large vegetable world visible to our unaided eyes.

As the horticulturalist is able to alter the character of his plants by changing the circumstances under which they live, so can the bacteriologist change the vital processes and activities of bacteria by chemical and other manipulations of the culture substances in which these organisms grow. The power of bacteria to cause pathological changes may thus be weakened or attenuated; in other words, their functional power for evil is taken from them by alterations in the soil, the pathogenic or disease-producing power may be increased by similar, though not identical, alterations. The rapidity of their multiplication may be accelerated, or they may be compelled to lie dormant and inactive for a time; and, on the other hand, by exhausting the constituents of the soil upon which they depend for life, they may be killed.

The destruction of bacteria by means of heat and antiseptics is the essence of modern surgery. It is then by preventing access of these parasitic plants to the human organism (aseptic surgery), or the destruction of them by chemical agents and heat (antiseptic surgery), that we are now enabled to invade regions of the body by operative attacks which a few years ago were sacred.

It is a most curious fact, also, that it is possible, by selecting and cultivating only the lighter colored specimens of a certain purple bacterium, for the bacteriologist, to finally obtain a plant which is nearly white, but which has the essential characteristics of the original purple fungus. In this we see the same power which the florist has to alter the color of the petals of his flowers by various methods of selective breeding.

When the disease-producing bacteria gain access to the tissues and blood of human and other animals by means of wounds, or through an inflamed respiratory or alimentary mucous membrane, they produce pathological effects, provided there is not sufficient resistance and health-power in the animal's tissues to successfully antagonize the deleterious influence of the invading parasitic fungus. It is the rapid multiplication of this germ which furnishes a *continuous* irritation that enables them to have such a disastrous effect upon the tissue and the animal. If the tissues

had only the original dose of microbes to deal with the warfare between health and disease would be less uncertain in outcome. Victory would actually be on the side of the tissues and health.

The immediate cause of the pathogenic influence is probably the chemical excretions which are given out by these microscopic organisms. All plants and animals require a certain number of substances to be taken into their organisms for preservation of their vital activities. After these substances have been utilized there occurs an excretion of other chemical products. It is probably the excretions of the many millions of micro-organisms circulating in the blood that give rise to the disease characteristic of the fungus with which the animal has been infected. The condition called sapræmia, or septic intoxication, for example, is undoubtedly due to the entrance of the excretory products of putrefaction-bacteri into the circulation. This can be proved by injecting into an animal a small portion of these products obtained from cultures of the germs of putrefaction. Characteristic symptoms will at once be exhibited.

Septicæmia is a similar condition, due to the presence of putrefactive organisms themselves, and hence their products or ptomaines also in the blood. The rapidity of their multiplication in this albuminous soil, and the great amount of excretion from these numerous fungi, make the condition more serious than sapræmia. Clinically, the two conditions occur together.

The rapidity with which symptoms may arise after inoculation of small wounds with a very few germs, will be apparent when it is stated that one parasitic plant of this kind, may, by its rapidity of multiplication, give rise to fifteen or sixteen million individuals within the twenty-four hours. The enormous increase which takes place within three or four days is almost incalculable. It has been estimated that a bacillus only about one-thousandth of an inch in length, would, under favorable conditions, develop a brood of progeny, in less than four days, which would make a mass of fungi sufficient to fill all the oceans of the world, if they all had a depth of one mile.

Bacteria are present everywhere. They exist in the water, earth, air, and within our respiratory and digestive tract. Our skin is covered with millions of them ; as is every article about us. They can circulate in the blood and lymph, and reach every tissue and part of our organism by passing through the walls of the capillaries. Fortunately, they require certain conditions of temperature, moisture, air, and organic food for existence and preservation of their vital activities.

If their surroundings are too hot, too cold, or too dry, or if they do not supply a proper quantity and quality of food, the bacterium becomes inactive, until the surrounding circumstances change, or may die absolutely. The spores, which finally become full fledged bacteria, are able to stand a more unfavorable environment than the adult bacteria. Many spores and adults, however, perish.

Each kind of bacterium requires its own special environment to permit it to grow and flourish. The frequency with which an unfavorable combination of circumstances occurs, limits greatly the disease-producing power of the pathogenic bacteria.

Many bacteria, moreover, are harmless, and do not produce disease even when present in the blood and tissues. Besides this, the whole blood cells are perpetually waging war against the bacteria in our bodies. They take the bacteria into their interiors and render them harmless by eating them up, so to speak ; or they crowd together and form a wall of white blood cells around the place were the bacteria have entered the tissues, thus forming a barrier to cut off the food supply to the germ, and, perhaps, to prevent them entering the general blood current.

The war between the white blood cells and the bacteria is a bitter one. Many bacteria are killed ; but on the other hand, the life of many blood cells is sacrificed, by the bacteria poisoning them with ptomanies. The tissue cells, if healthy, offer great resistance to the attack of the army of bacteria. Hence, if the white cells are vigorous and abundant at the site of the battle, defeat may come to the bacteria, and the patient suffer nothing from the attempt of these vegetable parasites to harm him. If, on the other hand, the tissues have a low resistant power, because of general debility of the patient, or a local debility of the tissues themselves, and the white cells be weakly and not abundant, the bacteria will gain the victory, get access to the general blood current, and invade every portion of the organism. Thus a general or a local disease will be caused, varying with the species of bacteria with which the patient has been infected, and the degree of resistance on the part of the tissues still existing.

From what has been stated it must be evident that the bacterial origins of disease depend upon the presence of a disease producing fungus ; a diminution of the normal healthy tissue resistance to bacterial invasion. If there is no fungus present, the disease caused by such fungus cannot develop. If the fungus be present, and the normal healthy tissue resistance be undiminished, it is probable that disease will not occur. As soon, however, as overwork, injury of a mechanical kind, or any other cause, diminishes the local or general resistance of the tissues individual, the bacteria have the upper hand, and are liable to produce their malign effect.

Many conditions favor the bacterial attack. The patient's tissues may have an inherited peculiarity, which renders it easy for the bacteria to find a good soil for development ; an old injury or inflammation may render the tissues less resistant than usual ; the point at which inoculation has occurred may have certain anatomical peculiarities which make it a good place in which bacteria may multiply ; the blood may have undergone certain chemical changes which render it a better soil than usual for the rapid growth of these parasitic plants.

The number of bacteria originally present makes a difference also. It is readily understood that the tissues and white blood cells would find it more difficult to repel the invasion of an army of a million microbes than the attack of a squad of ten similar fungi. I have said that the experimenter can weaken and augment the virulence of bacteria by manipulating their surroundings in the laboratory. It is probable that such a change occurs in nature. If so, some bacteria are more virulent than others of the same species ; some less virulent. A few of the less virulent disposition would be more readily killed by the white cells and tissues than would a large number of the more violent ones. At other times the danger from microbic infection is greater, because there are two species introduced at the same time ; and these two multiply more vigorously when together than when separated. There are, in fact, two allied hosts trying to destroy the blood cells and tissues. This occurs when the bacteria of putrefaction and the bacteria of suppuration are introduced into the tissues at the same time. The former causes sapræmia and septicæmia, the latter causes suppuration. The bac-

teria of tuberculosis are said to act more viciously if accompanied by the bacteria of putrefaction. Osteomyelitis is of greater severity, it is believed, if due to a mixed infection with both the white and golden grapecoccus of suppuration.

I have previously mentioned that the bacteria of malignant pustule are powerless to do harm when the germs of erysipelas are present in the tissues and blood. This is an example of the way in which one species of bacteria may actually aid the white cells, lencocylis and tissues in repelling an invasion of disease-producing microbes.

Having now occupied a portion of the time allotted to me, in giving a crude and hurried account of the characteristics of bacteria, let me conclude my address by discussing the relation of bacteria to the diseases most frequently met with by the surgeon. Mechanical irritations produce very temporary and slight irritation and inflammation, which rapidly subside because of the tendency of nature to restore the parts to health. Severe injuries even will therefore soon be followed by healing and cure, if no germs enter the wound.

Suppuration of operative and accidental wounds was, until recently, supposed to be essential. We now know, however, that wounds will not suppurate if kept perfectly free from one of the dozen or more forms of bacteria that are known to give rise to the formation of pus.

The doctrine of present surgical pathology is, that suppuration will not take place if pus-forming bacteria are kept out of the wound, which will then heal by first intention without inflammation, and without inflammatory fever.

In making this statement I am not unaware that there is a certain amount of fever following various severe wounds within twenty-four hours, even when no suppuration occurs. This wound-fever, however, is transitory, not high, and entirely different from the prolonged condition of high temperature formerly observed, nearly always, after operations and injuries. The occurrence of this inflammatory, traumatic, surgical, or symptomatic fever, as it was formerly called, means that the patient has been subjected to the poisonous influence of putrefactive germs.

We now know why it is that certain cases of suppuration are not circumscribed but diffuse, so that the pus dissects up the fascias and muscles, and destroys with great rapidity the cellular tissues. This form of suppuration is due to a particular form of bacteria called the pus-forming "chain-coccus." Circumscribed abscesses, however, are due to one or more of the other pus-causing micro-organisms. How much more intelligent is this explanation than the old one that diffuse abscesses depended upon some curious characteristics of the patient. It is a satisfaction to know that the two forms of abscess differ because they are the result of inoculation with different germs. It is practically a fact that wherever there is found a diffuse abscess, there will be discovered the streptococcus pyogenes, which is the name of the chain-coccus above mentioned.

So also is it now easy to understand the formation of what the old surgeons called cold abscesses, and to account for the difference in appearance of its puriform secretion from the pus of acute abscess. Careful search in the fluid coming from such cold abscesses reveals the presence of the bacillus of tuberculosis, and proves that the "cold abscess" is not a true abscess, but a lesion of local tuberculosis. Easy it is now to understand the similarity between the "cold abscess" of the cervical region and the "cold abscess" of the lung in a phthisical patient. Both of them are, in fact, simply the result of invasion of the tissues with the ubiquitous tubercle bacillus; and are not due to pus-forming bacteria.

Formerly it was common to speak of the scrofulous diathesis, and attempts were made to describe the characteristic appearance of skin and hair pertaining to persons supposed to be of scrofulous tendency. The attempt was unsuccessful and unsatisfactory. The reason is now clear, because it is known that brunette and blonde, old and young, can become infected with the tubercle bacillus. Since the condition depends upon whether the tissues of one or other become infected with the ever-present bacillus of tubercle, it is evident that there can be no distinctive diathesis. In truth, it is more than probable that the cutaneous disease so long described as lupus vulgaris, is simply a tubercular ulcer of the skin, and not a special disease of unknown causation.

The metastatic abscesses of pyæmia are clearly explained when the surgeon remembers that they are simply due to a softened blood-clot, containing pus-forming germs, being carried through the circulation and lodged in some of the small capillaries.

A patient suffering with numerous boils upon his skin, has often been a puzzle to his physician, who has in vain attempted to find some cause for the trouble in his general health alone. Had he known that every boil owed its origin to pus-bacteria, which had infected a sweat-gland, or hair follicle, the treatment would probably have been more efficacious. The suppurative pus-germs either lodged upon the surface of the skin from the exterior, or deposited from the current of blood in which they have been carried to the spot.

I have not taken time to go into a discussion of the methods by which the relationship of micro-organisms to surgical affections has been established; but the absolute necessity for every surgeon to be fully alive to the inestimable value of aseptic and antiseptic surgery, has led me to make the foregoing statements as a sort of resumé of the relation of the germ theory of disease to surgical practice. It is clearly the duty of every man who attempts to practice surgery to prevent, by every means in his power, the access of germs, whether of suppuration, putrefaction, erysipelas, tubercle, tetanus, or any other disease, to the wounds of his patient. This, as we all know, can be done by absolute bacteriological cleanliness. It is best, however, not to rely solely upon absolute cleanliness, which is almost unattainable, but to secure further protection by the use of antiseptic solutions. I am fully of the opinion that chemical antiseptics would be needless, if absolute freedom from germs was easily obtained. When I know that even such an enthusiast as I, myself, am continually liable to neglect, or to forget some step in this direction, I feel that the additional security of chemical antiseptics is of great value. It is difficult to convince the majority of physicians, and even ourselves, that to touch a finger to a door knob, to an assistant's clothing, or to one's own body, may vitiate the entire operation by introducing one or two microbic germs into the wound.

An illustration of how carefully the various steps of an operation should be guarded is afforded by the appended rules, which I have adopted at the Woman's Hospital, of Philadelphia, for the guidance of assistants and nurses. If such rules were taught every medical student, and every physician entering practice, as earnestly as the paragraphs of the catechism are taught the Sunday-school pupil, and they cer-

tainly ought to be so taught, the occurrence of suppuration, hectic fever, septicæmia, pyæmia and surgical erysipelas would be practically unknown. Death, then, would seldom occur after surgical operations, except from hemorrhage, shock, or exhaustion.

With this feeble plea, Mr. President and members of the Society, I hope to create a realization of the necessity for knowledge and interest in the direction of the practical bacteriology, for this is the foundation of modern surgery. There is, unfortunately, a great deal of abominable work done under the names of antiseptic and aseptic surgery, because the simplest facts of bacteriology are not familiar to the operator. I have taken the liberty of bringing here a number of culture tubes, containing beautiful specimens of some of the more common and interesting bacteria. The slimy masses seen on the surfaces of jelly contained in the tubes are many millions of individual plants, which have aggregated themselves in various forms as they have been developed as the progeny of the few parent cells planted in the jelly as a nutrient medium or soil.

A CONTRIBUTION TO THE ETIOLOGY OF DIPHTHERIA.[1]

By E. KLEIN, M.D., F.R.S.

THE microbe, which was first described by Klebs at the Weisbaden Congress in 1883, then isolated and grown in artificial cultures by Loeffler ("Mitth. aus dem K. Gesundheitsamte," vol. ii) from human diphtheritic membrane, was shown by this observer to act virulently on various animals. The Klebs-Loeffler bacillus—by which name the diphtheria microbe is known—is the one with which also Roux and Yersin ("Annales de l'Institut Pasteur," II, No. 12) obtained positive results on guinea-pigs.

In the reports of the Medical Officer of the Local Government Board for 1888–89 and 1889–90, I have shown that there occur in diphtheritic membranes two species of bacilli, very similar in morphological respects, and also in cultures on serum and on agar, but differing from one another in this, that one species (Klebs-Loeffler bacillus No. 1) is not constant in diphtheritic membranes, does not grow on solid gelatine at 19–20° C., and does not act pathogenically on animals; the other species (Klebs-Loeffler bacillus No. 2) is constant in diphtheritic membranes; in fact, is present even in the deeper layers of the membranes in great masses and almost in pure culture, acts very virulently on animals, and grows well on gelatine at 10–20° C. Loeffler, and after him other observers (Flugge, "Die Mikro-organismen," 1886) considered it as a character of the diphtheria bacillus that it does not grow on gelatine below 22° C.; but this character, though true of the Klebs-Loeffler species No. 1, does not appertain to the diphtheria bacillus species No. 2. In fact, there is no difficulty in obtaining pure cultures of this bacillus on gelatine if a particle of diphtheritic membrane be taken and well shaken in two or three successive lots of sterile salt solution, and from the last lot plate cultivations on gelatine are made. In this way I have obtained the diphtheria bacillus in great numbers of colonies and in pure culture. Zarniko ("Centr. f. Bact. u. Parasit.," vol. vi, page 154) and Escherich (*Ibid.*, vol. vii, p. 8) both state that the diphtheritic bacillus does grow on gelatine below 20° C.

This bacillus diphtheriæ acts very virulently on guinea-pigs on subcutaneous inoculation: at the seat of the injection a tumor is produced, which, in its pathology and in microscopic sections, completely resembles the diphtheritic tissue of the human. In human diphtheria, the diphtheria bacillus is present only in the diphtheritic membrane, but neither in the blood nor in the diseased viscera; the same holds good for the experimental guinea-pigs. In subcutaneous inoculation with artificial culture, though it causes in these animals acute disease and death—the lungs, intestine and kidney are greatly congested—the diphtheria bacillus remains limited to the seat of inoculation. It was for these reasons that Loeffler concluded that in diphtheria the diphtheritic membrane alone is the seat of the multiplication of the diphtheria bacillus, and that here a chemical poison is produced, which, absorbed into the system, causes the general diseased condition, and eventually death. Roux and Yersin have then separated from artificial broth cultures the bacilli and the chemical products, and, by the injection of these latter alone into guinea-pigs, have produced a general effect. I have, in this year's report to the Medical Officer of the Local Government Board (1889–90), shown that, in these experiments of injections of cultures into guinea-pigs, an active multiplication of the diphtheria bacilli at the seat of inoculation can be demonstrated by culture experiments; from the local diphtheritic tumor and the nearest lymph-glands the diphtheria bacilli can be obtained in pure culture on gelatine.

On various occasions during the last three years information has reached me by Health Officers (Dr. Downes, Mr. Shirley Murphy, Dr. Thursfield) as to a curious relation existing between a mysterious cat disease and human diphtheria in this manner: that a cat or cats were taken ill with a pulmonary disease, and, while ill, were nursed by children, and then these latter sickened with well-marked diphtheria. Or children were taken ill with diphtheria, and either at the same time or afterwards the cat or cats sickened. The disease in the cat was described as an acute lung trouble: the animals were quiet, did not feed, and seemed not to be able to swallow. In some cases they recovered; in others they became emaciated, while the lung trouble increased, and ultimately they died. In one instance—in the north of London, in the spring of 1889—this cat malady, occurring in a house where diphtheria soon afterwards appeared amongst the children, was of a widespread nature. A veterinary surgeon—Dr. Daniel—informed me that, at that time, he had several patients among cats affected with the disease, consisting in an acute catarrhal affection, chiefly of the respiratory passages. He furnished me with two such animals: one that, after an illness of several weeks, had died, another that was sent to me in a highly emaciated state, affected with broncho-pneumonia; this animal was paralyzed on the hind limbs. In both instances the post-mortem examination showed severe lung disease, broncho-pneumonia, and large white kidneys, due to fatty degeneration of the entire cortex. A similar condition is met with in the human subject in diphtheria. Further, I received from Dr. Thursfield, of Shrewsbury, the body of a cat that had died after a few days' illness from pneumonia, in a house in which children were ill with diphtheria; another cat in the same house, that became next ill with the same lung trouble, also succumbed. The post-mortem examination of the

[1] This research was undertaken for the Medical Department of the Local Government Board, and is communicated to the Royal Society with the permission of the Medical Officer. A paper read before the Royal Medical Society, London, May 22, 1890; reprinted from proof-sheets given by Dr. Klein to Dr. Hewitt. Advance sheets of "Public Health in Minnesota," Vol. VI., No. 4.

animal that I received showed severe broncho-pneumonia and large white kidneys, the entire cortex being in a state of fatty degeneration.

Subcutaneous inoculations of cats were carried out with particles of fresh human diphtheritic membranes and with cultures of the diphtheria bacillus (report of Medical Officer of the Local Government Board, 1889–90); thereby a local diphtheritic tumor was produced at the seat of inoculation, and a general visceral disease; in the cases in which death followed after a few days the lungs were found much congested; when death followed after one or more weeks, the lungs showed broncho-pneumonia, and the kidneys were enlarged and white, the cortex being in a state of fatty degeneration; if the disease in the animals lasted beyond five to seven days both kidneys were found uniformly white in the cortex; if of shorter duration, the fatty degeneration was sometimes only in patches. Although in these experiments the bacillus diphtheriæ was recoverable by cultivation from the diphtheritic tumor at the seat of inoculation, there were no bacilli found in the lung, heart's blood, or kidney, and the conclusion is justified that, just as in the human diphtheria and in the diphtheria produced by subcutaneous inoculation in the guinea-pig, so also in these experimental cats the visceral disease must be a result of the action of a chemical poison produced by the diphtheria bacillus at the seat of inoculation.

From this it is seen that the similarity between the artificial disease and the natural disease in the cat is very great, and the question that presents itself is, In what manner does the animal receive or give the diphtheritic contagium in the natural disease? The natural disease in the cat is, in its symptoms and pathology, a lung disease, and it is reasonable to suppose from analogy that the lung is the organ in which the diphtheritic process in the cat has its seat. The microscopic examination of the diseased lung of cats that died from the natural disease bears this out, the membrane lining the bronchi in the diseased portions of the lobules presenting appearances which in microscopic character coincide with the appearances in the mucous membrane of the human fauces, pharynx, or larynx in diphtheria. But the correctness of the above supposition, that diphtheria has its seat in the lung of the cat naturally diseased, was proved by direct experiment. Broth culture of the bacillus diphtheriæ was introduced into the cavity of the normal trachea without injuring the mucous membrane. The animals became ill with acute pneumonia, and on post-mortem, two to seven days after, there was found extensive pneumonia, and fatty degeneration of the kidney. The bronchi, infundibula, and air cells of the inflamed lobules were found occluded by, and filled with, exudation which, under the microscope, bears a striking resemblance to human diphtheritic membranes, and in the muco-purulent exudation in the large bronchi and trachea the diphtheria bacilli were present in large numbers.

During the last ten or twelve years certain epidemics of diphtheria have occurred which were traced to milk, but the manner in which that milk had become contaminated with the diphtheritic virus could not be demonstrated, although the evidence as to the milk not having been polluted from a human diphtheria case was very strong. The epidemic of diphtheria that prevailed in the north of London in 1878, investigated by Mr. Power for the Local Government Board; then the epidemic that occurred in October, 1886, at York Town and Camberley; the epidemic in Enfield at the beginning of 1888, and in Barking toward the autumn of 1888, were epidemics of this character. Mr. Power, in his report to the Local Government Board on the York Town and Camberley outbreak, states (page 13) that a veterinary surgeon has certified that the cows from whom the infected milk was derived were all in good health, but that two of the cows showed "chaps" on their teats, and he adds that even two or three weeks after the epidemic had come to an end—the use of milk having been in the meanwhile discontinued—he saw at the farm one cow which had suffered chapped teats. At Enfield a veterinary inspector had also certified that the cows were in good health; but at Barking the veterinary inspector found sores and crusts on the udder and teats of the cows.

I have made experiments on milch cows with the diphtheria bacillus, which appear to me to throw a good deal of light on the above outbreaks of diphtheria.

Two milch cows[1] were inoculated with a broth culture of the diphtheria bacillus derived from human diphtheria. In each case a Pravaz syringeful was injected into the subcutaneous and muscular tissue of the left shoulder. On the second and third days there was already noticed a soft but tender swelling in the muscle and the subcutaneous tissue of the left shoulder; this swelling increased from day to day, and reached its maximum about the end of the week; then it gradually became smaller but firm. The temperature of both animals was raised on the second and third day, on which days they left off feeding, but after this became apparently normal. Both animals exhibited a slight cough, beginning with the eighth to tenth day, and this gradually increased. One animal left off feeding and ruminating on the twelfth day, "fell in" considerably, and died in the night from the fourteenth to fifteenth day; the other animal, on the twenty-third to twenty-fourth, left off taking food, "fell in" very much, and was very ill; it was killed on the twenty-fifth day.

In both animals, beginning with the fifth day, there appeared on the skin of the udder, less on the teats, red raised papules, which in a day changed into vesicles, surrounded by a rim of injected skin. The contents of the vesicles was a clear lymph, the skin underneath was much indurated and felt like a nodule; next day the contents of the vesicle had become purulent, *i. e.*, the vesicle had changed into a pustule; in another day the pustule dried into a brownish-black crust, with a sore underneath; this crust became thicker and larger for a couple of days, then became loose, and soon fell off, a dry, healing sore remaining underneath. The whole period of the eruption of papules, leading to vesicles, then to pustules, and then to black crusts which, when falling off, left a healing dry sore behind, occupied from five to seven days. The eruption did not appear in one crop; new papules and vesicles came up on the udder of one cow almost daily between the fifth and eleventh day after inoculation, in the other cow between the sixth and tenth day; the total number of vesicles in the former cow amounted to about twenty-four on the udder, four on the teats; in the latter they were all on the udder, and amounted to eight in all. The size of the vesicles and pustules differed: some were not more than one-eighth of an inch, others larger, up to one-half and three-quarters of an inch in diameter; they had all a rounded outline, some showed a dark center. From one of the above

[1] The cows had been kept under observation previous to the experiment for ten days, and were in all respects perfectly normal.

cows, on the fifth day, milk was received from a healthy teat, having previously thoroughly disinfected the outside of the teat and the milker's hand. From this milk cultivations were made, and it was found that thirty-two colonies of the bacteria bacillus without any contamination were obtained from one cubic centimeter of the milk.

Unlike in the human, in the guinea-pig and in the cat the diphtheria bacillus passed from the seat of inoculation into the system of the cow; this was proved by the demonstration of the diphtheria bacillus in the milk. But also in the eruption on the udder, the presence of the diphtheria bacillus was demonstrated by microscopic specimens, and particularly by experiment. With matter taken from the eruption—vesicles and pustules—of the udder, two calves were inoculated into the skin of the groin; here the same eruption made its appearance: red papules, rapidly becoming vesicular, then pustular, and then became covered with brown-black crusts, which, two or three days after, became loose, and left a dry, healing sore behind. More than that, the calves that showed this eruption after inoculation became affected with severe broncho-pneumonia and with fatty degeneration of the cortex of the kidney. In the two cows above mentioned, on post-mortem examination, both lungs were found highly congested, œdematous, some lobules almost solid with broncho-pneumonia in the upper lobes and the upper portion of the middle or lower lobe respectfully; the plural lymphatics were filled with scrum and blood. Hemorrhages in the pericardium and lymph glands, and necrotic patches were present in the liver. At the seat of inoculation there was, in both cases, a firm tumor consisting, in necrotic diphtheritic change, of the muscular and subcutaneous tissue. In this diphtheritic tumor continuous masses of the diphtheria bacillus were present; their gradual growth into, and destruction of, the muscular fibers could be traced very clearly.

It appears, then, from these observations, that a definite disease can be produced in the cow by the diphtheria bacillus, consisting of a diphtheritic tumor at the seat of inoculation, with copious multiplication of the diphtheria bacillus, a severe pneumonia, and necrotic change in the liver; the contagious nature of the vesicular eruption on the udder and excretion of the diphtheria bacillus in the milk prove that in the cow the bacillus is absorbed as such into the system.

From the diphtheritic tumor by cultivation, pure cultures of the diphtheria bacillus were obtained; a small part removed from the tumor with the point of the platinum wire, and rubbed over the surface of nutrient gelatine or nutrient agar, yielded innumerable colonies of the diphtheria bacillus without any contamination. In cultural characters in plate, streak, and stab cultures, and in cover glass specimens of such cultures, this cow diphtheria bacillus coincided completely with the human diphtheria bacillus; but in sections through the diphtheritic tumor of the cow a remarkable difference was noticed between it and the bacillus from the cultures, inasmuch as in the tissue of the tumor masses of the microbe, both in the necrotic parts, as also where growing into and destroying the muscular fibers, were made up of filaments which in aspect resembled, to a considerable degree, the hyphæ of a mycelial fungus. But that it was really the diphtheria bacillus was proved by culture experiments and by cover-glass specimens. In the latter the transitional forms between typical diphtheria bacillus and long filaments with terminal knob-like swellings, with spherical or oblong granules interspersed here and there in the threads, could be easily ascertained. In the large number of cultivations that were made of the fresh tumor in both cows, the colonies obtained were all of one and the same kind, viz., those of the diphtheria bacillus; no contamination was present in any of the cultivations.

OUR INSANE HOSPITALS.

By A. F. MYERS, M.D.
BLOOMING GLEN, PA.

IN the issue of June 7, page 550, is an article that deserves more than a mere passing notice. Its purport is the advocating of the mode of administration of a few of our State Insane Hospitals—the plan of a physician superintendent who shall be the head of the institution as physician, chief executive officer of the respective boards of trustees, purchasing agent, etc. etc. The intent of the article may be obvious enough to those who have been watching the course of our insane hospitals the last thirty years. But to the unobserving it may be a hint that there is still something silently back of all this.

If any of our hospitals for the insane are on too radical a plan, as referred to in the resolution under consideration, it is the plan that was adopted for a few of our State institutions many years ago, and should be changed at once. New things are not always the best, but it is a fact that a few of our hospitals conducted on the plan of forty years ago, are too radical the wrong way. The intent and purpose of them were considered the best at that time, but years have wrought a change; better ones have been adopted, and the good results have proven them of eminent fitness in every possible way.

Probably none of our State institutions can boast of perfection, yet, in the eyes of the public, some are conducted on better plans than others. By the mode of administration of a few of our insane hospitals organized among the first in this State, the figurehead of the institution is superintendent, physician, chief executive officer of the various boards, purchasing agent and general business manager, a kind of "shot gun prescription like," so to say—a principle that is beset with many dangers by the way.

This plan gives to the head a power that may be conducive to a great amount of good; but, on the other hand, if put in the hands of an unscrupulous man the prospective welfare of the whole institution is bad. The various boards of trustees are under his control, being shorn of their power by delegating to one man their power to act. All the employés must dance to his piping, right or wrong. Many of the subordinate physicians employed by him are young men, full of theory, but lamentably poor in experience; employed for economical reasons, and the unfortunate populace are at his mercy. Oh, what a sad condition of affairs!

For this there is no redress. If a wrong is committed, the attendant keeps silent, and the patient is quieted by subjection. If cruelties occur, and perhaps terminate fatally, the corpse is sent home, or buried there; and with this final act ends all investigation. Inquests are rarely held. Complaints may be made but they will only be carried to the head of the institution, with only one man's sweet will to act upon—the powerless boards to confirm his report that is never made public—and the result is apparent.

But this condition of affairs is all wrong. The various boards of trustees should be an independent

body, with power to act, only subject to the power of the State and the will of the people. Let the public know regularly of its finances; how their money is spent; its progress and management. If money is squandered, let the culprit be discharged at once; if cruelties are committed, let the guilty party be punished according to law. Let no indulgent laws exist, or unlimited privileges be granted to any one. The vesting of unnecessary powers in any one man is never void of danger, even with the best of men. The last decade has fully proven this.

None but the best of physicians should be employed; only as physicians and nothing more. Only such that have had ample experience and been eminently successful in their chosen profession. These unfortunate patients require just this kind of attention. The remuneration should be adequate, so as to command the ablest medical men.

The female department should, by all means, be under competent female supervision. Many of the causes of insanity among females are peculiar to their sex, and should be looked after by physicians of their sex. Is it probable that they will confide their misfortunes or shortcomings to a young male attendant or physician who has not a particle of sympathy with their misfortune? By no means. For humanity's sake, if for no other reason, let our poor unfortunate women have the proper medical attendance. There are many female physicians who are celebrated for their knowledge and skill to care for this class of patients, and should be employed.

A good superintendent, together with a full corps of competent attendants and employés, should be procured to keep the buildings and surroundings in full accord of the requirements and condition of affairs as they should exist at such a place. The buildings should be kept perfectly clean and neat, and the grounds and surrounding scenery in strict harmony with what nature intended it to be. Proper hygienic principles should be carried out to perfection. What a grand opportunity to do much good unto the unfortunate!

Various visiting, charitable and investigating boards, should have the proper privilege of seeing how the institution is conducted. The time of visiting of the various boards should not be known beforehand by any of the employés of the institution. All business transacted by the board of trustees should be open for inspection. Inmates and attendants should have a legitimate means of presenting their grievances to the proper parties, so as to avoid, or correct any injustice done. Visiting by the curious public should be regulated, no improper liberties allowed; yet the public, if properly admitted can do something to elevate the fallen from their sorrowful condition.

There is no attempt at describing an ideal picture, not at all. These ideas are deducted from facts that are still in actual existence. We hope the days of autocratic superintendence of insane hospitals will soon be relegated to the past.

THE pioneer school for male nurses in this country is in connection with the Bellevue Medical College in New York. The Superintendent of this training-school is a woman, Mrs. O. S. Willard, a graduate of the Bellevue School for Women Nurses. Six young women, graduates of the same establishment, give ward instruction to the men, there being, it is said, no male nurses to be found who are competent to this task.

The Polyclinic.

PHILADELPHIA HOSPITAL.

ENDOCARDITIS.[1]

THE first case that I will show you is a child whose temperature is normal, but the child is ill-nourished and weak and somewhat anæmic. On auscultation a loud, harsh murmur is heard over the heart with the systole, seeming to be a mitral murmur, and resembles very much the murmur that is heard in a dilated heart of an adult. You observe that this child is not cyanotic. When you hear a murmur over the auricles of the heart, always be on the lookout for congenital malformation, or a failure of the foramen ovale to close. An open foramen will be attended sooner or later by cyanosis. The oldest case of which I know, in which the foramen did not close, was a girl sixteen years of age. She had to sit up and was almost asphyxiated, and had to be sustained on digitalis and whiskey, with inhalations of oxygen gas. She died some time later, and the diagnosis was confirmed. In an infant as young as this one the symptoms are not so prominent, and its trouble may be endo-, or pericarditis. The trouble is chronic. I think it is endocarditis, but the fact that there is no cyanosis does not preclude an open foramen ovale.—*Davis.*

PNEUMONIA.

A woman, aged thirty-three years, was brought into the hospital in the last stages of her life, and no history could be obtained. The patient was in a dying condition, and physical examination revealed complete solidification in the lower lobe of the lung, and justified the diagnosis of pneumonia. Temperature ranged from 103.5°–101° F., before death.

A few days after the death of the mother, the child, one year old, was taken ill. The mother nursed the child until a few days before she died. The child's temperature was 102° F., and pulse one hundred; respirations thirty-six to forty eight. Physical examination showed pneumonia. Physical signs were well marked; solidification at the apex, with amphoric breathing. The interesting point is this: Is this a case of direct contagion of pneumonia from the mother? If there ever was a case of contagion of pneumonia, this is certainly one. There is a possibility of acute tubercular infection in this child, but the signs are those of pneumonia. It is getting stimulants. The temperature is lower than it was; the child is not fretting and is not cyanosed. While the prognosis is not absolutely hopeless, yet we fear either croupous pneumonia or beginning tuberculosis. If the child has crupous pneumonia, it will get well. If it is tuberculosis, it will die.

[NOTE.—One week later, the child was still living and not much improved. In all probability, it will die; and the post-mortem examination can only confirm the diagnosis.]—*Davis.*

ACUTE PHTHISIS.

The next case is that of a woman well-advanced in pregnancy, who demonstrates some interesting points as to another affection. Her age is twenty years. Her father and mother both died of phthisis. She always considered herself well. Soon after her last menstrual period she began to cough; has night-sweats, and expectorates freely. No pain in the re-

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[1] Reported by William Blair Stewart, M.D.

gion of her kidney. Urine is acid; specific gravity is one thousand and thirty, and the sediment consists of fine granular casts. No albumen or sugar present. She has a contracted pelvis also. Her general condition is one of acute tuberculosis, complicating pregnancy. We could not hear the fœtal heart-sounds; there is no evidence of diminution in the size of the abdomen, but there is reason to fear that the fœtus is dead. The patient's face is flushed from weakness, and her condition is one of extreme anæmia; she cannot lie on her back without a great deal of suffering. Even in this position, with the patient lying on her side with the legs flexed, I cannot palpate with any degree of satisfaction, on account of the tense abdominal walls and rapid respiration. It is difficult to determine just what course of action to take in this case. Why not induce labor at once?

It is a well known fact that women suffering with tuberculosis have easy labors, as a rule, and can give birth to large-sized children, with little difficulty. The tissues become relaxed, they have good pains and do not suffer much; and this is a practical reason for not inducing labor. Even if we did induce labor, we would not render the tuberculosis any better. It is better to let her go on to full term, and when labor comes on perform craniotomy if it is impossible to deliver with the forceps. Why not resort to Cæsarean section? The fœtus is affected with the tubercular diathesis, in all probability, and it would not be justifiable to further endanger the mother's life by such a procedure. Another new feature has been brought into the case, by the presence of fatty granular casts in the uterine, and this also makes the case more grave. Creasote and alcoholic stimulants, with the very best diet, constitutes her treatment.

Recently I saw some specimens of tubercular infection that have an interesting history.

A Boston family had a child born to them that they had occasion to wean, and for its nourishment they selected the milk of one cow only. The cow was apparently healthy, as was the child. Soon the child began to droop, and, eventually, died of tubercular disease. A second child of the family, fed from the milk of the same cow, is now sick, and will, probably, die with a tubercular infection. This led the family to send the cow's milk to an eminent bacteriologist for examination. Some of the milk was injected subcutaneously under the skin of four rabbits, and three of them are now dead. The cause of death was miliary tuberculosis. Here, then, so far as "seeing is believing" is concerned, we have a direct contagion of tuberculosis from the milk of an infected cow.

The statement has recently been made that tuberculosis is rare in persons who are careful in the use of meat and milk. Tuberculosis may be conveyed from mother to child in the same way. You need not send a person to their grave because they have tuberculosis; but send them early to Colorado, and they may there recover. Do not send a patient away when he is far advanced in tuberculosis, for he will die in spite of all changes. A number of rabbits were inoculated with tuberculosis; one-half were comfortably housed and surrounded by the best hygiene, and recovered; the other half were put in a dark, damp place, with poor hygiene, and all died. Here is a practical lesson.

[NOTE—An unsuccessful effort was made in this case, at a later date, to induce labor, as it was found that to continue would endanger the life of the mother. She is very weak, and her end is about reached, and it has been decided, in the interest of the child, to perform a hasty Cæsarean section, just at the moment the mother dies. As it is, there is a doubt whether the child is living; but it will be given every chance for its life, in case it is alive.]—*Davis.*

MEDICO-CHIRURGICAL COLLEGE AND HOSPITAL.

FIRST FIVE YEARS' REPORT OF THE EYE CLINIC.

ON the reorganization of the Medico-Chirurgical College in 1884, it was necessary to open clinics for the purpose of getting material for practical teaching and demonstration to the students who might attend. With this point in view, in December of that year, I arranged a small room on the third floor of the building southwest corner Market and Broad streets, where the college was located at that time. At the same time general clinics were opened in another room; but no hospital accommodations were furnished, for want of proper places and conveniences. After some time the hospital was organized, and two large rooms in the building were fitted up for patients, but unfortunately none with the proper accommodations for eye diseases; so that it was not until after the college and hospital were removed, in 1888, to the present locality on Cherry street, between Seventeenth and Eighteenth streets, that the proper conveniences for the admission of eye patients undergoing operation could be afforded, especially admittance into wards, alone and away from other diseases and operations, which could not be had until last year; so that really operations of cataract, iridectomy, etc., were mostly made during that time.

In a large city where there are many hospitals and clinics already established, it is no easy matter to build up new ones, at once affording material enough for teaching, but whether from the locality or some other causes, there seems to have been a large increasing attendance from the first opening of all the departments in connection with this hospital, which is seen by the general reports of the institution.

In the eye clinic, during the past five years, that is from the opening in December, 1884, to December, 1889, 3,247 cases were treated, classified as follows: Affections of the lids and eye-brows, 290; lachrymal apparatus, 89; conjunctiva, 317; cornea and sclerotic, 387; crystalline lens, 148; iris and ciliary body, 87; choroid and vitreous, 89; retina and optic nerve, 78; eye-ball, 31; orbit and vicinity, 4; muscular and nervous system, 175; anomalies of refraction and accommodation, 1,452. Total, 3,247.

The number of operations performed before the class of students was 368; as follows: Cataract, 44; iridectomy, 15; abscission of the cornea, 1; enucleation of eye balls, 29; cornea and conjunctiva, 124; lachrymal apparatus, 39; lids and eyebrows, 68; muscles, 40; orbit and vicinity, 2; evisceration or exenteration of eye-ball, 6.

During the summer of 1889 a series of dispensary rooms was made to accommodate the different departments for the reception and treatment of the various medical and surgical diseases that present themselves, and in this arrangement increased facilities have been given for the eye department, and the daily attendance has been steadily increasing.—*Keyser.*

PICHI was introduced as a remedy for cystitis. Rusby (*Med. Record*) quotes a number of reports upon the drug, showing it to be of special value in acute cystitis occurring with childbirth, surgical operations, nephritis or gonorrhœa. In chronic cystitis it gave relief; it proved useful as an antilithic, but failed as a lithontriptic.

The Times and Register

A Weekly Journal of Medicine and Surgery.

New York and Philadelphia, July 19, 1890.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

THE TIMES AND REGISTER,

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THERE is a serious split in the eclectic ranks in Indianapolis. The State Medical Association has repudiated the college which, according to the *Free Lance*, has fallen into the hands of one W. P. Adkinson. This personage secured a controlling interest in the capital stock of the college, elected a board of his own choice, and got this board to confer on him the degree of Doctor of Medicine. This action is said to have been illegal, as the charter limited each holder of stock to a single vote; irrespective of the number of shares held. For these reasons the Indiana Eclectic State Medical Society repudiates the Medical College, and the eclectic journal follows suit; and every one honors them for the manly stand they have taken.

The history of eclecticism is peculiar. It arose from a reaction against the excessive use of depressants; the elements of its popularity are to be found in the natural dislike of our people to uniformity in belief and practice, the plea that our native drugs were neglected for the imported articles to whose use the profession was habituated, and the encouragement the system gave to that home medication so dear to the housewife's heart. Each of these exerted an influence favoring the popularity of eclecticism.

Americans dislike uniformity. We are never satisfied with a good thing, beause we think there is a better. England treats dysentery with lead and opium, just as she did a century ago; we have a new remedy every season; just as we have a new religious sect or political heresy. And no scheme, religious, politics or medical, can be broached here which does not win a following respectable in numbers.

As to the second element there was, besides the impulse of patriotism, a certain plausibility in the idea that between the diseases of a country and its remedial plants there was such a relation that the latter would be specially curative of the former. There is no doubt whatever, that we did neglect our native medical plants, and that we have not even yet given them the attention they merit.

The preparation of "teas" has always been popular with women, whose tender hearts impel them to be actively engaged in "doing something" to relieve the sufferings of the afflicted. The villainous decoctions of the Thomsonian, however, have given place to a valuable line of preparations, the powdered extracts; which are to-day well worth the attention of the profession. They have the convenience of the alkaloids, while better representing the full medicinal virtues of the plant.

The remedies employed by eclectics differ from those of our homœopathic brethren in that the former have really efficient drugs, producing effects quite as decided as those of the mineral salts. So far as it goes, then, the eclectic practice is a true and legitimate one; and the only fault we can find with their system is the limitation of their therapeutics to vegetable remedies, instead of extending it to embrace *all* that can assist in bringing health to the patient.

But in its practical workings another very serious objection is to be urged against that school, in that from it have sprung nearly all those notorious venders of bogus diplomas who have brought such disgrace upon the name of American medicine. The founders of the school not being educated physicians, it was natural that they should not set much importance upon the possession of what Hahnemann calls "the lore of the medical schools," and which, as an educated physician himself, he particularly urges his followers to acquire. The Buchanans, Paynes, etcetera, assumed the cloak of eclecticism; the Philadelphia Eclectic Colleges left such a stink in the public nostrils that no school of that sect could exist here. And now the Indiana College, with a Dean whose medical degree has just been voted him by a board elected by himself, as principal owner of the school, is not likely to pursue a very different course. But there are good men in eclecticism, as shown by the action of the Indiana Society; men whose qualities give strength to a system which would otherwise disappear; as the profession realizes the value of the eclectic preparations, and the eclectic is educated out of his narrow limits. If the Association of American Medical Colleges next summer decides to admit the graduates of eclectic colleges to the graduating classes of our own schools, provided they can pass the same examinations required of our own second-year students, the separate existence of that sect will be short lived.

Annotations.

FOR the treatment of gout, Rademaker (*American Pract and News*) claims specific virtues for a combination of colchicine, decandrine, and solanine, with potassium iodide; the alkaloids neutralized with hydriodic acid and sodium salicylate added. This is made into an elixir and denominated "solution of triple hydriodates, with salicylate of soda."

The name is objectionable, in that it does not give any hint of the presence of three very active alkaloids; none of them safe if taken incautiously, or of the iodide of potassium, which surely deserves recognition as well as the salicylic salt; especially as the author is compelled to caution the reader against the tendency of the preparation to produce iodism. How would this answer: "Compound iodo-salicylated colchicine elixir?"

SUIT has been entered to restrain the city from closing up the Wingohocking creek, by the owner of a mill that uses the water for power. This creek has long been an open sewer, which in some parts of its course threatens the health of Germantown. Part of the stream is covered by a culvert; and at the point where this culvert ends, diphtheria and kindred diseases prevail to a greater extent than over any other part of the course of the stream. It would seem as if the free diffusion of exhalations were less apt to be dangerous than those which are confined by the culvert and find exit at one point. The indication is to cover in the exposed portions of the stream, and provide for the ventilation of the whole culvert. Partial closure is worse than none at all.

SPASMODIC torticollis is rarely more than temporarily benefited by surgical measures, but Mayo Collier, in *The Lancet*, relates a more fortunate case. A girl of twenty-one years, with extreme torticollis of six years' standing. The head was severely rotated far to the right every few seconds, continuing with less violence during sleep. She had been dosed with drugs innumerable, galvanized, blistered, tonsils removed, galvano-cautery applied to back of throat, with no good effect.

The spinal accessory nerve was found, and followed into the sterno-mastoid some distance, using moderate traction on the nerve, but avoiding injury to the muscle. A loop of silver wire was placed around the nerve, as far up as possible, just twisting the ends to insure slight compression. The ends of the loop were left protruding from the wound. On emerging from the anæsthesia the spasms had ceased, and have never appeared since. The ends of the wire were cut close to allow the skin to grow over them.

STROPHANTHUS has been investigated by Bucquoy, whose conclusions are, in the main, confirmatory of those of Frazer. The drug is indicated by ventricular incompetence. It increases the ventricular force and lessens the pulse, but does not contract the arteries like digitalis. Strophanthus acts best in aortic valve disease, as the increased ventricular force is better shown here than when partly lost through mitral insufficiency. As in aortic diseases, there may be no compensatory hypertrophy. Strophanthus here occupies just the gap left by digitalis, as the latter has long been distrusted in aortic cases.

Strophanthus is said to be of less permanence as to its effects than digitalis. Clinical observation appears to show that the new drug is less decided in its action. The indications for its use are, however, so sharply differentiated from those of digitalis, that with comparative uniformity in the quality of the preparations to be found in pharmacies, strophanthus ought to supersede digitalis in nearly all cases, except when a hemostatic effect is desired, or the certain and rapid action of digitalis is needed in emergencies.

Letters to the Editor.

COAL OIL.

COAL oil has quite a reputation as a remedy in intussusception and fecal impaction. I have only used it in the former affection. We know that, mechanically, this oil is quite searching and penetrating. Just how it acts in intussusception, I am not prepared to say. It is my opinion, however, that its action is mechanical; working its way along the folds of invaginated and inflammed bowel, perhaps carefully breaking up the products of inflammation, and being gently moved on by the volume of water behind, the displaced portion of the bowel floats to its normal position. To illustrate roughly, call to mind a flock of sheep; "one go, all go." I fail to see where anything is gained by passing a tube into the bowels. For, unless the tube is passed well into the transverse colon, or the hips well elevated, the water will follow the tube back and the flushing must begin at the sphincter. I placed my patient in the knee and breast position, where he easily took one pint of coal oil followed by four pints of warm water. He was then directed to lie on his right side and retain the injection as long as possible. This was repeated every four hours. Patient made a good recovey.

GEO. CHAFFEE, M.D.,
1047 Third Avenue, Brooklyn.

HONOR WHERE DUE.

I AM in receipt of a sample copy of THE TIMES AND REGISTER, dated July 15, 1890, which contains a summary of the proceedings of the Ohio State Medical Society. In this summary there are remarks reported as made by myself concerning the use of chloroform in labor. Now, while I am in accord with those remarks made in the discussion of Dr. J. F. Baldwin's paper on The More Frequent Use of Chloroform in Obstetrics, yet I did not make them. They were offered by Dr. C. B. Ferrell, of 78 South Third St., Columbus, O. "Honor to whom," etc.

W. W. PENNELL.

Book Reviews.

HOW TO PRESERVE HEALTH. By LOUIS BARKAM, M.D. New York, 1890. Cloth. Pp. 344. Price, $1.00.

A question of the first importance, and one that we should always be ready to give advice upon.

TRANSACTIONS OF THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION. Volume II. Second Session, held at Nashville, Tenn., Nov. 12, 13, and 14, 1889. Published by the Association, 1890.

The volume contains papers by Maury, Roberts, Hardon, Haggard, Wathen, Johnstone, J. Price, Robinson, Engelmann, Davis, Brokaw, Hadra, McMurtry, Douglas, Lydston, Stone, Browne, Meriwether, Mathews, Nicholson, Kollock, Goggans, Claiborne, McRae, Lapthorn Smith, Briggs and Johnson.

RHEUMATISM AND GOUT. By F. LEROY SATTERLEE, M.D., Ph.D. Detroit, Mich.: George S. Davis. Pp. 83. Cloth, 50c.; paper, 25c.

Dr. Satterlee tells us that he has himself suffered from the ailments which he describes. This renders the book of special value, as it is not often we get one written under such circumstances.

In acute rheumatism he lays much stress upon the use of cholagogues, giving the following formula:

℞.—Euonymin . . . . . gr. ¼
Podophyllin . . . . . gr. ⅛
Aloin . . . . . gr. ⅛
M. S.—One tablet twice daily, as required.

He objects to the salicylates on grounds which show a very exceptional experience or a no less exceptional lack of skill in their use on his part. His preference is for the alkalies, which he gives in the following forms:

℞.—Potassii bicarb. . . . . ʒij–ℨij
Aquæ destillat. . . . . fʒviij

M. S.—One fluidounce to half an ounce of fresh lemon-juice; to be taken while effervescing.

℞.—Lithii benzoat. . . . . ʒss
Sodii bromid.,
Potassii carbonat. pura. . . . . āā ʒij
Potassii acetat. . . . . ℨiss
Sodii phosphat. . . . . ʒss.
Syr. zingiberis,
Aq. menth. pip . . . . . āā ad ʒvj

M. et Sig.—fʒij to fʒss, in half a glass of water, every four or six hours, after food.

He states that this mixture of three bases combined with five acids is effectual and agrees well with the stomach.

In *Zeitschrift für Physiologische Chemie*, Vol. XIV, No. 5, Trasaburo Araki, of Strassburg, "On the Coloring Matter of the Blood and its Derivatives," shows that the usual spectroscopic characters of methæmoglobin are deceptive and due to the presence of other substances especially oxyhæmoglobin, and that true spectra cannot be obtained of this substance so long as the solutions are either acid or neutral in reaction. In pure methæmoglobin solutions, the band in the green almost disappears, while that in the red becomes more developed. Some further researches on sulphur-methæmoglobin are given, and its identity with the green color of decomposing flesh is noted.

Dr. Herm. Karl Ludwig Baas, of Worms, discusses the changes of fats in the alimentary canal.

Paul Manasse, of Berlin, contributes "On the Lecithin and Cholesterin of the Red Blood Corpuscles." He cites the experiments from 1846 to the present time, of, in the order named, Gobley, Fremey, Liebreich, Parke, Hoppe-Seyler, and Dinkonow, who, collectively, had succeeded in demonstrating the existence of these substances, in yolk of egg, ova of fish, brain substance, bile and the red blood corpuscles, but, owing to the difficulty of isolation, their chemical identity had not been clearly established. By a series of experiments, faithfully detailed in the article, he claims to have settled this question.

Fredrick Reinitzer, "On the True Nature of Germ Ferments," deals with a question related principally to vegetable physiology, and, therefore, not of direct concern to the medical man.

"A Contribution to the Chemistry of Horny Matters," by Prof. E. Salkowski, of Berlin, based on a series of experiments, in which the professor was assisted by Dr. Ken Taniguti, of Japan, and looking to the physiological and chemical rôle of kreatinin, ends the number.—Samuel Wolfe, M.D.

Pamphlets.

Climatology and Diseases of Southern California. By F. D. Bullard, A.M., M.D. Reprinted from the *Southern California Practitioner.*

Ordinances of the City of Leavenworth, Kansas, relating to the Preservation of the Public Health. Compiled by C. F. W. Dassler, City Attorney, and W. D. Bidwell, M.D., Secretary of the City Board of Health. June, 1890. Leavenworth, Kan.: Ketheson & Reeves, Printers and Engravers.

Judging from these ordinances, the Kansas town gives a heed to its sanatory advisors that some older communities would do well to imitate.

WOULD you rather belong to a family noted for long heads or for long livers?

The Medical Digest.

LOVIOT has described a case in which an intestinal calculus, the size of a small orange, was produced by the immoderate use of Vichy salts.

ANALYSIS of Armour's meat extract shows it to consist of 68 per cent. water, 20 nitrogenous extractives, and 12 salts. This is a much greater proportion of water than is contained in Liebig's extract.
—*Brit. Med. Journ.*

PLENCKII'S SOLUTION, for cauterizing condylomata:

Hydrarg. chlor. corros.,
Aluminis,
Cerussæ,
Camphoræ,
Alcohol,
Aceti vini . . . . . āā partes equales.

HYPERTROPHY of the Schneiderian membrane, causing asthma, etc., is treated by spraying the following solution:

℞.—Antipyrin . . . . . ʒ j
Cocain. mur . . . . . gr. xx
Aquæ . . . . . ʒ iv. M.

—Potter, *West. Reporter.*

HUZZA (*Dixie Doctor*) reports a case of hematuria in which he gave the tincture of carduus marianus, in drachm doses thrice daily for two months. The case was that of a man sixty years old. The hematuria came on suddenly, following a lascivious dream. Over a pint of blood was estimated to be passed daily. The blood gradually diminished, and finally disappeared; though it recurred after violent exertion.

BIRCH BEER.—This pleasant and wholesome summer drink may be made by the following formula, from the *Pharm. Era:*

Birch essence . . . . . 1 ounce.
Wintergreen essence . . . . . ¼ "
Sassafras essence . . . . . ¼ "
Ground cinnamon. . . . . 1 teaspoonful.
Hops . . . . . 1 teacupful.
Water . . . . . q. s. to 1 gallon.

Steep ten hours; add sugar or molasses to taste, and one cup of baker's yeast. It is then ready for bottling. The essences are merely strong infusions.

BEACH (*Brooklyn Med. Jour.*) mentions a case in which a series of abscesses occurred on the ear, in the temporal region, the scalp, hand, etc. Attention was finally attracted to a sinus leading to the roof of a dead tooth. It was noticed that when this sinus closed the abscesses appeared. The tooth was extracted and the abscesses ceased to appear.

Cases of general ill-health, sometimes quite serious in degree, have been known to resist every mode of treatment until decayed teeth were extracted. Sometimes the speedy return to health is remarkable. In one case, the only assignable cause for amyloid liver and kidneys was necrosis of the teeth, in a child four years of age.

CHROMIC ACID IN CYSTS.—Woakes (*Lancet*) advocates the use of chromic acid in the treatment of cysts of various sorts. In a case of cystic goitre, where the cyst had refilled after evacuation and tannic acid injection, and a sinus had formed, he

passed a probe dipped in a saturated chromic solution into the cyst cavity. This was done repeatedly for three weeks, and five weeks later the cyst-wall came away entire.

In the second case, one similar to the first, the acid was applied to the walls by means of the "acid carrier." At the end of a week adhesion of the cyst-walls was complete.

In the third case the cyst was tapped and emptied, and the acid at once applied directly to the cyst-wall by the carrier. Rapid recovery ensued.

A fourth case presented two cysts. One of them bled freely on being tapped, and the blood neutralized the acid so that a second application was required to cure.

A case of ranula is also described, in which the application of the acid brought about a rapid cure.

AGGRAVATED HEMORRHOIDS.—1. In the more aggravated forms of hemorrhoidal disease the surgeon has to do with a veritable angeioma, sometimes involving the whole circumference of the anal end of the rectum.

2. The anatomical relations of this vascular tumor are such as to render possible its enucleation and ablation without special hazard to life, and without involving especially difficult operative procedures. This has been demonstrated on a large scale by Mr. Whitehead, of Manchester, England, and is corroborated by the experience of many other surgeons.

3. The method of excision and suture is inherently a more desirable operation than other methods involving strangulation of tissue, ulcerative and suppurative processes. It is not, however, so easy or so quick of performance, and demands a greater degree of technical skill and experience for its safe employment.

4. The best final results from the operation can only be obtained by avoiding injury to the sphincter muscle, or to its nerves; by the preservation of all the integument at the verge of the anus, and by the even circular discission of the rectal mucous membrane above the growth.

The operation of excision though, in the more aggravated cases of hemorrhoidal tumors, often tedious and bloody, presents no difficulties not under the easy control of ordinary surgical skill; its results are superior to those obtainable by any other means; it is, therefore, an operation to be commended, and to be accepted as a permanent addition to the art of surgery.—Pilcher, *Brooklyn Med. Jour.*

WHEN shall we use hypnotics? In acute disease, particularly fevers, sleep is often a necessity, reducing the activity of the heart, removing more waste, and quieting the general excitability of the nervous system. In chronic disease there is frequently the same temporary need. In incurable disorders with pain and discomfort, in the restlessness of senility, hypnotics and narcotics—and used freely in the last years of life—are almost the chief justification of our service. Often in mental disease they are, for a time, all but indispensable. In some neurotic people their occasional use can hardly be avoided. In acute nervous and mental disturbance from profound shock, full and continued doses of narcotics may dispel most threatening symptoms. The individual must, of course, be taken into consideration. Many can be depended upon to use hypnotics only as directed by their physician; others can no more be trusted with them than certain persons with alcohol. Something of slight intrinsic hypnotic value may be intensified by its mental effect, and I am sometimes deliberately asked for a prescription upon which to build a mind-cure. It is often imperative to prescribe a hypnotic, where it is best that a decided hypnotic effect should not be got. For this purpose a somewhat unpleasant drug is better than an altogether agreeable one, and the prescription which I use consists of a few minims of paraldehyde in a drachm of chloroform water. This can be repeated in the night several times, and be continued without harm.

In some conditions, even with acute maniacal symptoms, it is better to let the patient lie awake almost absolutely for two or three nights than give the amount of narcotics necessary to produce sleep.

—Folsom, *Boston Med. and Surg. Jour.*

SUMMER DRINKS IN INDIA.—The *Medical Record* of Calcutta contains some interesting remarks upon the beneficial effects to be derived from non-alcoholic drinks in the height of summer. After remarking that the very bane of European existence in India lies in the habits of eating and drinking, physiological arguments are adduced to show that highly carbonized materials are very deleterious in hot climates. The custom of the Moguls, who for luxury have had no equal in Indian history, is referred to as offering a fitting example. Their drinks consisted of milk, sweetened waters, or sherbets, prepared from subacid fruits, such as lemons, tamarinds, pomegranates, etc., flavoured with rose or Keora essences, date juice, numerous vegetable tisanes, and some infusions of glutinous seeds flavored with sugar and essential oils. These were often cooled with ice collected in pits, where it was stored during the winter months. The Oriental races, it is asserted, suffer from few of the diseases which are common to the copious meat-eating, wine-drinking Europeans. For a hot day, a light vegetable diet is recommended, with a spare quantity of meat food, and an abundance of cooling, non-alcoholic drinks. Ice is regarded as a necessity, and coffee, tea, and cocoa are to take the place of whiskey-and-soda. The use of ærated waters, prepared from pure and wholesome ingredients, and the admixture in them of the numerous fruit flavorings which abound in the tropics, are regarded with favor, as likely to offer a lucrative source of income to persons engaged in such trade, while also giving the European community a very acceptable form of summer drinks. This suggestion has already, to a certain extent, been put into practice both in this country and in America, but there is still some uneasiness as to possible evil consequences resulting from the consumption of large quantities of iced drinks when the atmospheric temperature is high. As regards light diet and extreme moderation in the use of alcohol, however, the recommendations are admirable, and might well be followed here.—*Lancet.*

OVARIAN HERNIÆ.—THEIR CAUSES, SYMPTOMS, AND TREATMENT.[1]—Ovarian herniæ are amongst the most neglected, although clinically they should be included amongst the most important, of the troubles that come before us in gynecological practice. In the great majority of cases they occur downward into Douglas' space, and in such instances the left ovary is that most frequently displaced. The next in point of frequency of these herniæ are those occurring in the inguinal regions, where they are either

[1] Abstract of a paper read at the British Medical Association, Annual Meeting, Birmingham, July, 1890—Obstetric Section.

found above Poupart's ligament or, as is more commonly the case, follow the course of the canal of Nuck downward and forward, and so present in the labia, where they may be readily recognized. In the former or directly downward variety of displacement, the ovary may be discovered on vaginal examination in the recto-vaginal fossa as a small, oval-shaped, firm, elastic, and highly-sensitive tumor, bulging forward into the post-cervical *cul de sac.* In the larger number of cases ovarian herniæ, especially those in Douglas' space, result from the *vis a tergo* of abdominal or uterine tumors, or from the tension on the appendages occasioned by displacements of the uterus.

Diagnosis.—Until recently these herniæ, when inguinal, were very generally compounded with en larged glands; when labial, with other tumors in that situation, and when downward, with pelvic abscess and hematocele. Or, as often happens, they are mistaken for the retroflexed fundus uteri, and the patient, suffering from an ovarian prolapse, is vainly treated for a non-existent retroflexion or retroversion of the uterus. There can now be no excuse for such errors. The sudden occurrence of the tumor, its physical character, the peculiar dull, sickening pain, and the extreme tenderness and nausea manifest on examination, are sufficient to enable a correct diagnosis to be made by any competent gynecologist.

Treatment.—Where the ovarian herniæ take place through either of the abdominal rings or downward into Douglas' space, it may, in some instances, be reduced as any other hernia similarly situated. In the majority of cases, however, such herniæ are irreducible when discovered, and must either be supported in the former case by applying a hollow truss, whilst in the latter case the prolapsed ovary must be replaced, if possible, and kept in position with a peculiar form of pessary, exhibited, specially devised by Dr. More Madden for the purpose; or, failing this, if the symptoms be urgent, the ovary must, in some cases, be removed.

The foregoing views are illustrated in the paper of which this is an abstract by the details of several instances of ovarian herniæ, exemplifying the clinical history and treatment of such cases.

—Thomas More Madden.

PLASTER SPLINTS FOR FRACTURES OF THE LEG.—The form of splint which I am about to describe has been found to be particularly convenient for dealing with such fractures of the leg as are suitable for the "immediate" method of treatment. In the case of a fracture—say at the junction of the middle and lowest thirds of the leg—three measurements are taken: (1) The length of the limb from an inch and a half above the knee to the sole of the foot; (2) the circumference of the thigh at the level of about an inch and a half above the knee; (3) the length of the foot from the heel to the ball of the big toe. An oblong piece of old blanket is then cut out, one way an inch and a quarter longer than 1, the other way an inch and a half less than twice the measurement of 2. The limb is laid on the flannel, which is held up by its edges, supporting the leg as in a sling. Next the flannel is tacked together close to the limb, down the front of the leg, along the sole, and then along the dorsum of the foot. It is better to sew the flannel up in the order given, along the sole first and along the dorsum afterwards, because by doing so the foot will be held by the flannel in the position in which it should be—at a right angle with the axis of the limb. The leg is thus closely encased in flannel; whilst, along the front of the leg and dorsum and sole of foot, a double free edge of flannel of greater or less extent is left beyond the seam. These free edges along the dorsum of the foot, as high as the ankle, and along the sole, are trimmed off close to the seam. There now remain two considerable wings of flannel, extending down the front of the leg as far as the ankle. Each wing, when turned back from the middle line in front, will reach to within about half an inch of the middle line behind. These wings are then trimmed from below upward, so as to shape them to the form of the leg. Two side splints, with rectangular foot-pieces, are then cut out of flannel, similar in shape to those used in a "Croft." They are cut out so that each piece, when applied to the limb, shall reach to within about a quarter of an inch of the middle lines in front and behind. Care must be taken that the anterior edge of each side-piece is quite straight; the posterior edge may be shaped so as to allow for the swelling of the calf muscles. Traction is then applied to the limb, and these side-pieces, having been thoroughly saturated with plaster-of-Paris solution, are placed over the flannel casing, one on each side of the leg. The wings of flannel are then quickly folded back, each over its respective side piece, and smoothed down. Some plaster solution is then rubbed well into the outer surface of the two flannel wings, avoiding, however, a border about a quarter of an inch wide and extending down the front of the leg, on either side of the seam. The perfect adaptation of the splint to the limbs may then be secured by applying a thin muslin roller bandage over the whole from the toes upward. After ten minutes, the muslin bandage is unrolled, and the splint is then finished. The plaster will probably be quite dry in the course of an hour or so. When the splint is completed, it will be seen that, next to the skin, there is a continuous casing of flannel; that, outside this, there is on either side, except just below the ankle, a double thickness of plaster-saturated flannel; that along the middle line behind there is a sort of hinge formed by the single thickness of plaster-free flannel of the original casing, and that each anterior edge, when the splint is opened, is formed by a fold of soft flannel. This latter is of importance, as the skin is thereby protected from uncomfortable pressure of the anterior edges of the plaster-saturated side-pieces. Thus, with these splints, there is no tendency to the formation of superficial bullæ from this cause, nor will subsequent padding with cotton-wool be found necessary.

—Fouleiton, in *The Lancet.*

SPANISH TRANSLATIONS.

DR. W. F. HUTCHINSON.

From "La Cronica Medico-Quirurgica de la Habana."

The Commission chosen by the Society of Clinical Study, at the session of the 11th of last February, whose duty it was to look up all possible information relative to the fever known as "fiebre de borras" (climate or weather fever) have sent to all practitioners on the island a list of questions, answers to which will constitute a pretty complete study of the disease. It seems especially desirable that the nativity of this fever should be ascertained, as it and those of its class appear to belong to tropical islands by preference.

The Society has issued the following circular:

Among the diseases that are peculiar to the country and whose origin is still unknown is this "fiebre de borras," regarded by some as an entity, and by others as a modification of the yellow fever poison in natives.

This fever, of frequent occurrence at certain times of the year and in certain well determined localities, is of doubtful nativity.

For this and for other reasons, it was included in the programme of the first Cuban medical congress, where its consideration evoked a lively and interesting discussion.

Following one of the recommendations of the congress, the Clinical Society trusts that the committee to be appointed will promptly proceed to obtain all possible information on the subject, and to this end have formulated a series of questions, answers to which will probably give all necessary light upon the subject.

In order to give sufficient time to arrange these, or to gather new facts, the investigation will not close before the 30th of September, 1891, at which date all replies are to be in the hands of the Secretary.

The questions are prepared with great care, and will doubtless give excellent results.

ILLUSTRATIONS OF SOME LESS-KNOWN FORMS OF PERIPHERAL NEURITIS, ESPECIALLY ALCOHOLIC MONOPLEGIA, AND DIABETIC NEURITIS (Thomas Buzzard, M.D., F.R.C.P.)—As is now widely known, it is in the form of multiple neuritis that the toxic influence of alcohol is very prone to be exerted on the nervous system. Cases of alcoholic paralysis of this kind are not at all uncommon, and occur more frequently in women than in men, and occasionally even in females of good social position.

Let me first very briefly sketch a case of alcoholic polyneuritis as it most commonly presents itself when seen in consultation.

The patient is lying in bed, unable to stand; able to flex the thighs upon the pelvis fairly well, and possibly also to bend the knees, but with still greater difficulty. The feet are "dropped," that is, they lie flaccidly in a position of over-extension, and the patient is unable, when requested, to dorsal-flex them. The knee-jerks are absent. The muscles of the legs, especially those on the anterior surface below the knee, are probably atrophied, and are found to yield no response to induced currents of electricity. The arms are thin, and the thenar and hypothenar eminence may be found atrophied. There is more or less "wrist drop," so that the patient presents the appearance of one suffering from lead palsy. The extensor muscles in the forearm, as well as the intrinsic muscles of the hand, may not contract to faradic currents.

On the sensory side we may expect to hear of pains, which are often of lightning character, coming and going in sudden darts, like stabs of a knife, or the boring of a gimlet, and quite recalling those which are characteristic of tabes dorsalis. Or they may be described as gnawing, or burning, or pricking. They are usually most pronounced in the lower extremities. It is commonly found that great tenderness of the muscles is complained of when these are grasped by the hand. The patient herself will sometimes describe a sensation of aching in the muscles, and very commonly, indeed, a feeling of "numbness," "deadness," or "pins and needles," which is referred especially to the hands and feet. More or less cutaneous anæsthesia is found in the feet and legs. As a general rule the functions of the bladder are not disordered, and there is no tendency to bedsores.

There is usually a remarkable loss of memory, the patient often saying, for instance, that she has been out for a walk on that day, when she has not left her room for many weeks. There is often also a condition as though of complacent indifference and incapability of grasping the full meaning of her condition, which seems to be peculiar to a state of chronic alcoholism.

If such a case as this should give the opportunity of post-mortem examination (a comparatively rare exception) a subacute inflammatory process will be found affecting the nerve trunks, especially the radial and anterior tibial or the peroneal. The nerves will seldom show any particular change to the naked eye, but, having been hardened and submitted to section, evidence of parenchymatous degeneration is discovered in them, together with more or less interstitial neuritis.

In females affected with alcoholic neuritis I have observed now, during many years, that the catamenia are almost suppressed, and often for many months during the illness. I do not attempt an explanation of this. It seems to me a curious and interesting fact when taken in conjunction with the well-known complete, or almost complete, immunity of the functions of the bladder and rectum.

Although in the majority of cases it is the nerves of the extremities which appear to bear the brunt of the lesion, yet I have seen paralysis of the respiratory muscles and of those subserving degultition, and in one instance almost complete paralysis of the external muscles of the eyeballs. The pneumonia which occasionally terminates the scene in cases of this kind is very likely due to lesion of the vagus.

I have given an illustration of the more usual symptoms in a case of multiple neuritis due to alcohol. It is necessary to mention exceptional conditions which are found in certain cases. There may be no pains, and but very little or indeed no disturbance of cutaneous sensibility. It seems that in some rare instances it is almost entirely the efferent fibres which suffer. There is often a very considerable amount of œdema of the feet and legs, and the hands may look puffy and sodden. Indeed, I have seen one case in which the brunt of the lesion appeared to fall mostly on the vasomotor system of nerves, and give rise to œdema. In some cases it is chiefly a tottering ataxic gait, which is noticeable. This often precedes the paralytic state, which may and often does arrive quite suddenly.

Although a drop condition of the feet is so common as to be highly characteristic of alcoholic paralysis, and should always suggest inquiries into the history, yet I have lately seen a few cases in which the symptom was not present. In these, it is true, the amount of paralysis of the lower extremities was not very great, but as the loss of power in the anterior tibial muscles is commonly an initiatory as well as a very characteristic symptom, it seems worth while to note that it may occasionally fail to occur, at least early in the case.

A case which I have seen this winter illustrates some of these exceptional conditions. A gentleman who had greatly exceeded began in September to lose power in the knees and ankles, at the same time complaining of pains in the muscles of his legs. He managed to attend office for a month, then one day, when dressed and ready to start, his legs gave way under him and he could not get up. He then began to lose power in the hands, which swelled and were numbed. They remained bad for a short time only. When I saw him two months after his attack he had not been able to walk, or even to stand. His legs were swollen, he could not dorsal-flex the feet. There were no pains, nor anæsthesia, nor tenderness of muscles. The knee jerks were absent. He made a rapid

recovery, and in three months was almost well. When I last saw him both knee jerks had returned.

The lower extremities as a rule are more severely affected than the upper. It occasionally happens, however, that when the patient comes under observation recovery has taken place in all except one limb, and then there is a chance, unless care be taken, of a mistake in the diagnosis of the case. A lady was seen by me, in consultation, in April, 1888. She was suffering from loss of power in the left hand. She had no complaint to make of her legs, or of the right arm. There was wasting of the thenar and hypothenar muscles of the left hand, with loss of faradic reaction. The skin was red and polished looking. The catamenia had been absent for some months.

There was exquisite sensitiveness to touch at the tips of the fingers and in the palm, and if the wrist-joint were moved it caused her excruciating pain. The hand and arm presented the helpless look of a fractured limb. The fingers were white and puffy, the nails overgrown, because she could not bear to have them cut. Great tenderness was experienced on pressing the median nerve at the wrist. The right thumb, and two fingers were sensitive at the tip, and the hand was weak; it had been still more helpless than when I saw it.

In January the patient had begun to feel as if she had "rheumatism," and her fingers became oversensitive. At that time she was very weak.

In February her knees would give way, so that she fell more than once on her wrists. At that time she was walking with the help of a stick or some one's arm, on account of "rheumatism" in her knees. She dragged her feet. She was treated with induced electrical currents, and the hands gradually improved.

On May 3d, after the hand had been placed in hot water for the purpose of faradism, it became purplish-red and swollen. I have often noticed this to happen in cases of neuritis. The cuticle will often scale off.

On May 26th, adhesions in the wrist and finger-joints were broken down under chloroform. Under faradism, massage, and passive movements she slowly improved, and I heard subsequently that the arms had got quite well. It should be said that there was a distinct history of excessive drinking in this case.

In the following case neuritis (presumably from alcohol) was confined from the first to the district of a single muscle.

A gentleman, aged twenty-nine, was sent to me by his medical attendant with paralysis of the index, middle, and, to a less extent, of the ring finger of the right hand, which had been observed for three weeks. The patient was a paroxysmal drinker, and had just come out of a debauch of several weeks. The hand presented just the appearance of an early stage of wrist-drop from lead. There was no blue line, and no history of exposure to that metal. The faradic excitability of the extensor communis of the right arm was lessened and A S Z > K S Z. The hand felt numbed. There had been no pain in the arm. There was no sign of lesion in the other arm, or in the lower extremities. The knee-jerks were present and equal. Under treatment, chiefly by abstinence and with slight application of electric currents, he quite recovered in six or seven weeks.

In another example the lesion was confined to the brachial plexus of one side.

A gentleman, aged twenty-two, came to me from a medical man in the country. His right arm hung helpless. It was exquisitely tender to the touch, full of pain, and presented a sodden appearance. Pains had begun in the arm some weeks previously. For some two or three years, I was informed, his habits had been most intemperate, and he had been on the verge of *delirium tremens* when the attack of brachial neuritis began. At first its occurrence appeared to check the development of the symptoms of delirium, but when he returned home he was in a half maniacal condition, which prevented an exact examination of the arm being made. He had been then treated with salicylates, bromides, iodides, arsenic, and quinine. Under antipyrin, grains 25, and extract of Indian hemp, grain ¼, three times a day, he soon began to have less pain and tenderness. In a fortnight he looked very much better, and was free from pain. I heard later that he had quite recovered.

A female patient was brought to me on account of loss of power in the right hand and greatly impaired vision. I found the right grasp diminished in power. The two middle fingers were especially weak, and tended to drop. There was no cutaneous anæsthesia. She had suffered from what she called "rheumatism"—sharp shooting pains in the feet and across the instep for years, but had had no pain in the arms. In the course of the last six years she had on three occasions an epileptic fit. The difficulty of vision was peculiar. At first it strongly suggested hemiopia. Looking at the word "holding," she could read "hold" only. After a pause and apparently readjusting her gaze, she saw the remainder of the word. Facing me, she could see my right eye clearly, my left but very indistinctly. Yet, on holding up my fingers, and testing the field of vision, I could discern no impairment of the extent to which she could see to her right and left. It appeared, therefore, that she had a scotoma just to the right of the center of the visual field. Her tongue appeared slightly inclined to her right. This last symptom, coupled with the suggestion of hemiopia, paresis of the right arm, and the history of fits, might easily lead to a diagnosis of intracranial disease. But close investigation did not confirm this.

The extensor communis muscle of the right arm showed distinct lowering of excitability to both faradism and galvanism, but especially to the latter. This could not result from an intracranial lesion. It pointed to an affection of the "spinal" nervous system, and was most probably due to peripheral neuritis. (The word "spinal" connotes, of course, the spinal nerves as well as the cord). There was a history of alcoholism. I was disposed to refer the scotoma to periaxial neuritis of the optic nerve. The patient recovered completely in a few weeks.

I saw quite recently in consultation a lady, aged sixty-four, who a fortnight previously had entirely lost the use of the right arm. Investigation of the cause of this monoplegia excluded a traumatic origin. The tendon reflexes in the other arm and in the legs were good. In the right arm they were absent. There was total inability to move any muscle of the right upper extremity, including the shoulder, together with anæsthesia of the hand, which decreased shortly above the wrist. Pain of excruciating character, especially bad at night, was described as affecting the right arm. It was as though the "limb were being torn out of its socket on a rack." I had not an opportunity of testing the faradic excitability of the muscles, which were very flaccid, but the other symptoms are sufficient to show that the lesion was probably a neuritis of the brachial plexus. The patient was described as not having been sober for a year past.

These examples, I have thought, would prove interesting and valuable, as tending to show what has

not yet, so far as I know, been advanced respecting the influence of alcohol, that its effects may appear, not only in the more common form of a generalized paralysis of the extremeties, but in lesion of a peculiarly localized character. If I am right in the view that these are examples of localised neuritis due to alcohol, it is evident that we shall have in future to bear this possibility in mind, when we meet with neuritis of single nerves or plexuses, of the cause of which we do not find a ready explanation.

Let us turn now to peripheral neuritis arising from other causes than the influence of alcohol. A week or two after I had published a work on "Paralysis from Peripheral Neuritis," the following case came under my observation at the hospital. It is one of multiple neuritis, occurring in a patient affected with diabetes melitus :

J. K., aged fifty-five, carpenter, applied to the National Hospital for the Paralyzed and the Epileptic, on June 30th, 1886, suffering from loss of power in the lower extremities, which he ascribed to working in the wet. He had been quite well until the previous September, when, after working daily for several weeks out of doors in the cold and wet, he began to get pain and tenderness in the front of the right thigh, which extended presently down the leg to the foot. The pain was very severe, and there was so much weakness that his knee often gave way and let him down. A month after the right the left leg was similarly attacked, and in three months from the first symptoms he could not walk at all. About this time he noticed also numbness and "pins and needles" in both legs, especially in the soles of the feet, and the pains were severe and continuous. The symptoms continued till the end of February, when the pains became less severe, and he became able to walk upon crutches. The improvement in his lower limbs continued, but towards the end of May he began to have a little tingling and slight numbness in the tips of his fingers. At no time was there any difficulty with his bladder, but soon after the commencement of his illness he was troubled with great thirst and noticed that he passed much urine, and, moreover, wasted in flesh a great deal.

On examination, the legs were found thin ; they could be flexed readily upon the thighs, but extension was imperfectly performed. There was no power of dorsal-flexing the feet upon the legs. There was tenderness on pressure in the soles of both feet, and he complained of tingling and numbness from the feet up to the knees—more in the feet, ankles, and front of the legs than in the calves. There was much loss of cutaneous sensibility in the feet and lower part of the legs. The knee-jerks were absent. There was no response to the strongest induced currents in the anterior tibial group of muscles, and this painful application could be borne without inconvenience in that situation, whilst lower down it was only felt as pressure. It was remarkable, I may note by the way, that some immediate return of voluntary power in dorsal-flexing the feet followed this application, although the electric current itself caused no muscular contraction. Examinations of the urine showed that it contained a large quantity of sugar.

The man was admitted as an in-patient a fortnight afterwards. Examination then showed the plantar reflex fair on the left, but hardly to be obtained on the right sole ; the gluteal fair on the left, not well marked on the right ; the cremasteric also better on the left than the right side. The abdominal and epigastric reflexes were present on each side. There was a ready and normal response to induced currents in the muscles of the hands and arms, but still no reaction in the anterior tibial group ; the calf muscles responded, though not perfectly, and the muscles of the thighs also responded, to the induced current. A strong galvanic current was required to cause contractions in the anterior tibial muscles, but the response took place on the right side to twenty-eight cells with the positive-pole closure, as against thirty-four cells with the negative-pole closure. On the left side, too, the positive-pole closure contraction was more marked than the negative. On the other hand, in the right gastrocnemius only twenty-two cells were required with the negative pole, as against thirty-two with the positive, A fortnight later a very strong faradic current produced contractions in the anterior tibial group, but a much weaker current was sufficient to act upon the peroneal muscles.

When he left the hospital, at the end of August, K S Z > A S Z in the anterior tibial group. There was still great loss of cutaneous sensibility in front of the legs.

Examination of the urine showed that it was passed in large quantities and of high specific gravity, as the following figures will indicate :

July 25th,	74	ounces	in the	24	hours,	specific gravity 1045,
" 26th,	79	"	"	"	"	" 1043,
" 27th,	94	"	"	"	"	" 1042,
" 28th,	84	"	"	"	"	" 1042.

The urine contained sugar in abundance.

The patient was shown to the Harveian Society in November, 1886. After remaining as an out-patient during the winter and spring, he was again admitted into hospital in June, 1887, still complaining of great loss of power in both lower limbs, the movements of which were feeble. There was drooping of the toes of the left foot. Both legs were slightly wasted. The knee jerks and plantar reflexes were absent. There was continuous pain in both legs and feet, and some but less numbness than formerly. Sensation to touch was diminished below the knees. In the same region there was slight tenderness on pressure.

On the outer side of the right foot, just below the external malleolus, was a deep ulcer, the skin around it and on the outer side of the foot generally being much congested. This had begun as a small swelling, which had gradually increased in size, burst, and discharged a small amount of pus.

On the sole of the left foot, just below the metatarso-phalangeal joint of the great toe, was a cicatrix due to a similar condition, which had arisen in connection with a corn in that situation, in the February preceding.

Tactile sensation was diminished in both hands, and the patient complained of slight pain in both hands and the left forearm. There was pain in all the fingers of the left hand, and in the little and ring finger of the right hand. There was loss of power in both hands, especially in the left, and the power of flexing the elbow was much feebler on the left than on the right side. There was wasting of the thenar and hypothenar eminences of both hands, and of the interrossei (especially of the first) in both hands ; also slight wasting of the left forearm.

From the middle to the end of July the diet consisted in toast, green vegetables, meat, eggs ; no potatoes, sweets, beer, rice, or other starchy food. The quantity of urine averaged fifty-seven ounces per diem, and by the fermentation process the amount of sugar was estimated at an average of twenty-five grains per ounce of urine.

From the end of July to the middle of August soft bread was substituted for toast, with the result that the urine averaged eighty-three ounces per diem, with thirty-five grains of sugar per ounce of urine.

From the middle of August until the middle of October gluten bread replaced the soft bread previously taken. The quantity of urine fell to an average of fifty-four ounces per diem, with only sixteen grains of sugar per ounce of urine. *Pari passu* with this decrease of glycosuria, the patient gained weight, the ulcer healed, and when he left the hospital, on November 3d, his condition generally was described as much improved. I have since lost sight of him.

When I first saw this man in the out-patient room, I recognized his case as one of a class to which (in order to distinguish them from those resulting from disease of the cord) I have suggested the name of neuritic paraplegia. The basis or ultimate cause of the neuritis did not at once appear evident, as there was no alcoholic history. It was in an endeavor to discover this, and influenced by the man's description of thirst and wasting, that I examined the urine for sugar. Just at that time the occasional dependence of peripheral neuritis upon diabetes had been announced abroad, and I was much interested in meeting with a case in point. The occurrence of perforating ulcers in this case is very interesting. From this, together with the absence of knee-jerks, and the pains, the case might readily, but for the discovery of the sugar and the existence of muscular atrophy, have been set down at first sight to one of tabes dorsalis, with which it had much in common.

In another case, to which I need only very briefly refer, symptoms of pains and weakness of the extremities, with absence of knee-jerks, had been ascribed to tabes. In that instance I discovered a large quantity of sugar, and under a partially restricted dietary there was remarkable improvement in the symptoms and the knee-jerks returned. The symptoms in this case had never attained the severity observed in the preceding one. There had been no considerable loss of power, and the muscles showed no atrophy. In another, seen recently in consultation, a diabetic patient suffered from excruciating pain in the lower extremities with loss of knee-jerks. In the following example the paralysis and atrophy were strongly pronounced, and much more localized than in the first example.

A gentleman, aged sixty, was sent to me in October, 1887, with the left arm hanging helpless and its muscles wasted. He told me that he was suffering from diabetes and that he had much gout. Sugar had been discovered six years, and he passed about fifteen grains to an ounce. Albumen had been observed eighteen months, and it measured about a twentieth. The sun of a gouty father, he had always drunk beer and port wine, and began to show gout at forty years of age. His appearance was that of a man who had lived freely. His heart-sounds were feeble, and he had an aortic systolic *bruit*. He passed in the twenty-four hours about six pints of urine, usually of a specific gravity of one thousand and twenty-five. This was on a partially restricted dietary. On ordinary diet it would rise to one thousand and forty or more. He was taking six ounces of whiskey daily, besides some wine. His weight, which had been formerly eighteen stones ten pounds, was then about fourteen stones.

Examination showed wasting of all the muscles of the left shoulder and arm, except the flexors of the wrist and fingers. In these only reaction to the induced current persisted, although it was diminished. In the wasted muscles there was none. There was much œdema of the hand, and the sensibility of the skin of the arm was much diminished. Only the left shoulder and arm appeared to be affected. The atrophy had been preceded by great gnawing pain about the shoulder, with shooting down the arm, which had begun, according to the patient's account, about a month previously. There were no knee-jerks.

When I saw this patient five months later, he could lift the shoulder and elbow, which he had not been able to do when he was first examined, but electrically there was no improvement. There was no reaction to the strongest induced current in the muscles of the shoulder, arm, and extensor side of the forearm; the flexors of the wrist and fingers required also a strong current. The skin of the shoulder of the right side was but little sensitive to induced currents, and he had been complaining of pain in that situation.

In June, 1889, I again saw this patient in consultation at his own house. He was then suffering from congestion of the base of the left lung. Both his arms were now very incapable.

I recently saw a female whose gait was shambling, and who could scarcely use her hands. There was a history of pains in the feet, gradually extending up the legs, of a sharp character, from which she had suffered for three years. She had no knee-jerks. Pupils reacted to light. There was anæsthesia below the knees. She could dorsal-flex the feet, but the legs were very weak. Her memory was good. There was no appearance or history of alcoholism. I suggested to her medical attendant to examine the urine for sugar. He found it of specific gravity one thousand and forty-two, and highly charged with sugar.

It appears from a case recently published by Dr. Althaus that the neuritis in diabetes may be limited to a single nerve.—*British Med. Journal.*

TUBERCULOUS CATTLE.—The following official statistics, relating to the public slaughter-house of Augsburg, may be interesting: During 1889, of 23,592 calves slaughtered, only one (an animal three weeks old) was found to be tuberculous. Of 13,679 head of older cattle, 612, or 4.4 per cent., were tuberculous. Of 8,537 oxen, 167, or 1.94 per cent. were tuberculous; while of 5,008 cows, 445, or 8.88 per cent., were affected with that disease. In four cases, or almost one per cent. of the cows, the udder was the seat of tuberculosis. In 67 of the 612 cases, in which disease was discovered, the flesh was declared unfit for food on account of generalized tuberculosis, and destroyed.

DR. JOHN RIDLON, clinical teacher at the Vanderbilt *clinique* in connection with the College of Physicians and Surgeons, New York, lately gave a lecture and demonstration on the subject of Potts's spinal caries, at the Royal Southern Hospital, Liverpool. The apparatus he employs for fixing the spine is a modification of Taylor's, differing from it in this, that the pressure is made over the transverse processes of the vertebræ, and not, as in Taylor's apparatus, over the ribs. The basis of support is formed by a steel band, passing behind the sacrum and between the iliac crests and the great trochanter, resting on the latter. From this two upright steel bands pass, one on each side of the line of vertebral spines, and terminate in a strap that passes round the shoulder and axilla. Above and below the point of deformity there is a transverse bar attached, having at either end a strap which passes forward and is secured to an

apron which covers the front of the patient. On each side of the deformity pressure is made along the line of transverse processes by cork pads attached to the upright bars. The advantages claimed for this apparatus are that the deformity is controlled to the greatest possible extent by the pressure being made on the transverse processes, and that there is no possibility of the angle slipping to one side. When the disease is in the upper dorsal region, a support for the chin is added ; and a frontal band is employed, when it is in the cervical region. With regard to diagnosis, Dr. Ridlon regards rigidity of the spine as the most constant and unmistakable symptom of Pott's disease, being present from its earliest onset, and only disappearing when the cure is complete. Local pain and tenderness at the point of disease he regards as never occurring in uncomplicated caries of the bodies of the vertebræ, and if found in any case suggests that the condition is not Pott's disease at all. The lecture was listened to with much interest by several practitioners in the neighborhood, and a hearty vote of thanks was accorded to Dr. Ridlon.

—*Brit. Med. Jour.*

On the Strumous Diseases of Childhood and Their Relation to Tubercle.[1]—During a long experience as physician to the first hospital for diseases of children established in Ireland, with which I have been connected since its foundation, in 1872, the increasing prevalence of the strumous and tubercular diseases of childhood have been constantly brought under my clinical observation. The intimate connection and relation between these conditions was pointed out nearly a quarter of a century ago in my work on "Change of Climate," and was discussed in a paper of mine in the Transactions of the International Medical Congress of 1871, as well as last year in my article on *Puberty*, in Dr. Keating's recently-published American "Cyclopædia of Diseases of Children." I refer to these dates merely as evidence that the views embodied in the following brief recapitulation were not hastily formed nor without some experience of the subject referred to. The increasing proportion of strumous and tubercular affections which have been observed of late years in my wards in the Children's Hospital, is probably largely ascribable to the faulty dietetic and hygienic management of early childhood, and to the general substitution of artificial, and in many instances very unsuitable, preserved or tinned preparations, for that natural or fresh milk which, in my opinion, is essential for the healthy nutrition of children. As I formerly pointed out, and the observation is now more applicable than was the case ten years ago, the acute forms of tuberculosis common during childhood resemble the infective diseases in their origin from a specific germ, whether generated in the body or introduced from without. The latter is probably the case in the tubercular diseases prevalent amongst the children of the poor, in whose dietary various forms of preserved milk foods now enter largely, as it seems difficult to conceive any certain guarantee that the cows furnishing the supply may not, in some cases, suffer from *perlsucht*, this disease being very prevalent and not materially affecting the quantity of milk. More recently Prof. Bollinger has shown that milk may prove infectious whether taken from cows suffering from general or local tuberculosis. In his experiments only a few drops of undiluted milk from a tuberculous cow proved sufficient to produce miliary tuberculosis in animals. Be the pathogenesis of tuberculosis what it may, however, can, I think, be no question as to the fact that it is most frequently developed in patients who bear in their general constitutional condition, and more especially in their glandular system, the obvious imprint of the strumous diathesis. Nor is it to be wondered at that in children thus constitutionally enfeebled the struggle for existence between the invading specific microorganisms and the blood corpuscles, or leucocytes, should almost invariably so speedily terminate in the fatal victory of the prolific bacilli of tubercle.

—Thomas More Madden.

[1] Abstract of a paper read at the British Medical Association Annual Meeting, Birmingham July, 1890—Obstetric Section.

Medical News and Miscellany.

Dr. Sharp sailed for Boston on Tuesday.

Prof. J. M. Anders has been inspecting Sea Isle.

Prof. Duhring has honored Atlantic City with a brief visit.

Women are admitted to the classes of all Italian universities.

The reports from Spain show that the cholera is raging there.

"La Grippe" is said to be responsible for a large number of suicides.

Philadelphia has 1095 arc lights, and 892 miles of underground electric wires.

Dr. G. Howard Beck has been appointed Police Surgeon for the Fifteenth Ward.

The Seaside Home at Cape May Point has begun its beneficent work for the summer.

A Detroit electric-light company insures the lives of its employés for five thousand dollars each.

The dragon-flies are said to have completely cleared Light-house Point of mosquitoes. A pointer for Cape May Point.

Sweet milk was so scarce during the late hot spell in New York that milkmen got double the price usually charged.

"Dr." Bradley, the diploma vender, has been indicted. He has destroyed his plates and surrendered diplomas and seals.

Dr. George I. McLeod, of Thirty-ninth and Chestnut streets, sailed on Wednesday, July 9th, by the Bothnia, for Europe.

A rabid sea-lion took possession of a Santa Fé train and held it until death. The carcass was taken to Armour's packing house.

Dr. Iliff, of Philadelphia, showed his keen appreciation of the comforts of life by taking up his abode at the Mansion, Atlantic City.

Dr. Judson Daland spent last Saturday and Sunday at Cape May. The doctor is looking well and hearty ; he is quite fond of swimming.

The Lippincott homestead, at Palmyra, N. J., has been opened as a sanitarium for sick children, under the supervision of Dr. Francis Janney.

MR. TABBOT, of Boston, has opened a summer camp for boys, on the borders of Lake Asquam. Lucky boys! Wish we were one of you!

THOSE old friends, the cholera scare and the man who "points with pride" in the political platforms, have commenced their summer campaigns.

DRS. D. C. POSEY AND ROBINSON, of the Presbyterian Hospital, have just returned from Elberon Springs, where they had a pleasant holiday.

THE ptomaine produced by the bacillus of mice septicæmia, is called methylquanidine. One-thirty-second of a grain is sufficient to kill a rabbit.

THE account of the remarkable birth of quadruplets in the *Dietetic Gazette* seems to have been copied by every small medical journal in the United States.

DRS. ALLIS and Posey are said by the *Times* to have performed the rare and difficult operation of herniotomy at the Presbyterian Hospital last Saturday.

DIET during summer complaint of infants should be determined entirely by the condition of the bowels, and not by theoretical ideas as to Nature's food.

BROOKLYN'S death rate is on the increase. There were 552 deaths during the week ending July 5, representing an annual death rate of over 33 in every 1,000.

DR. E. M. WILLIARD, one of the visiting staff of the Presbyterian Hospital, left for Europe on Wednesday, July 9th, and will be away during the summer months.

A PIN was lately removed from the ear of a woman at the University Hospital. She had used it to stop itching, when it slipped into her ear and penetrated the drum-head.

THE summer home for the deaconesses of the German Hospital at Cape May Point is occupied by the Sisters and Dr. Marie L. Baŭer. The mosquitoes take kindly to Teutonic blood.

THE State Factory Inspectors, in four and a half months, made one thousand one hundred and twenty-seven inspections and only found forty-two children under twelve years of age.

A MICHIGAN druggist sold alcohol to a fifteen-year-old boy, who, with his little brother, got drunk on it, and both were killed on the railroad. The parents are suing the druggist for damages.

THE physicians of New Orleans, who started a training-school for nurses, having failed, the ladies took it up, and have carried it through the first year with a fair prospect of success.

THERE is a Flour, Fruit and Ice Mission which meets weekly at Horticultural Hall for the purpose of distributing contributions of the above to the different hospitals of Philadelphia.

SEVERAL children were poisoned in Bridgeport, Pa., last week, by eating blackberries from bushes on which Paris green had been sprinkled, to poison insects that were eating the leaves.

POSTMASTER-GENERAL WANAMAKER, last week, attended the exercises at a sea-side home for the sick recently established at Ocean City by the Bethany Sunday-school, of Philadelphia, of which he is superintendent.

THE Children's Country Week Association, last week, sent three hundred and twenty-six children to points along the main line of the Pennsylvania Railroad and Baltimore Central Division.

HENRY M. STANLEY will lecture in the Metropolitan Opera House, New York, for the benefit of the Fresh Air and Benevolent Home of Summit, N. J., shortly after his arrival in this country.

MRS. ISABELLA BIRD BISHOP, the famous traveler, has obtained from the Maharajah of Kashmir the grant of a piece of land on which to build a hospital of sixty beds and a dispensary for women.

A CAT which had been recently bitten by a supposed mad dog, in Beverly, Massachusetts, attacked and bit two little children of J. C. Edwards, and tore the hands of Charles Grenough, who killed the animal. The wounds were cauterized.

THE next meeting of the Fifth District Branch of the New York State Medical Association will be the eighth special meeting, to be held in Kingston, Ulster county, New York, on Tuesday, July 22, 1890. A large attendance is desired.

SOME months ago we mentioned the advantages of working women donning masculine garments. A Berks county farmer's wife arrayed herself in her husband's clothes and mounted the reaper, but the harvesters refused to work with her.

THE *Chicago Medical Times* states that the Bennett (Eclectic) Medical College parted with their late Dean because he sold a diploma of the college for $100 to a man who had only attended one course of lectures, applied for graduation and was refused.

ACTING on the report of its experts in regard to the steam heating nuisance, the Board of Health issued orders to the New York Steam Heating Company to shut off its steam and discontinue the use of its mains at four different points in the city.

THE German joke is calculated to give one a pain in the stomach. The *Fliegende Blatter* says a physician is noted for his generosity because he attends people without asking a fee; he settles with the heirs. The key to the combination will be over by the next steamer.

THE *Medical Press* quotes a medico-legal case which the railway doctor pronounced an attempt at imposition; while two distinguished surgeons held that the spinal injury was so serious that it would require from one to two years of the most skilful treatment to cure.

THE party of ladies and gentlemen who tramped to Atlantic City took a pleasant and profitable method of spending their vacation. Pedestrian tours open up a succession of pleasant surprises to those who have only seen a section by glimpses from a flying express train.

MR. THEODORE WARNE has left THE TIMES AND REGISTER, to accept a position at Peter Wright & Sons, and his place, as manager of the subscription department, has been filled by Mr. George Wharton McMullin, who retires from the advertising department, where his place has been filled by the energetic Dr. Giles. Mr. McMullin has been connected with the journal ever since the first issue of the old *Medical Register*, with the exception of a few months during the summer of 1887, when he returned to his labors as the successor of Dr. William C. Wile.

DR. M. J. ROSEMAN, of the resident staff of the Almshouse, who received a commission as surgeon in the United States Marine Corps, and Dr. Frank Keefer, who passed at the head of forty-eight applicants as surgeon in the United States Army, are waiting to be ordered to report for duty.

A MEDICAL BISHOP.—The Right Reverend Henry Callaway, Bishop of St. John's, Caffraria, South Africa, who died March 26, was a regularly qualified practitioner of medicine and surgery, his M.D. degree having been granted by the King's College, Aberdeen, in 1853. He was in his seventy-third year at the time of his decease.

DR. LANPHEAR may see the truth of the old adage that a slander goes much farther than its denial, in the re-publication of its circulation item by the *Weekly Medical Review*. Dr. Lanphear published a statement concerning THE TIMES AND REGISTER which was untrue. He should at least give equal prominence to our denial.

THE St. Louis College of Physicians and Surgeons is erecting a new college building; to be completed by October 10. It is a handsome structure, 75x119, with three large lecture-rooms and all other needed appurtenances.

The Beaumont Medical College is also being rapidly pushed to completion.

DURING June, 38 new cases were admitted to the Germantown Hospital; 30 cases were discharged, and 1 died. Remaining in the Hospital June 30, 32. In the general dispensary 294 cases were treated. In the eye department there were 107 cases; in the nose, 16; ear, 21; and throat, 24 cases. During the month there were 19 ambulance calls.

AT the regular meeting of the Managers of the Pennsylvania Society for the Prevention of Cruelty to Animals, held on Tuesday, of last week, the operations of the month showed that 920 cases of abuse and cruelty had been attended to, resulting in 23 arrests, 395 sore and lame horses and mules were turned out of harness, and 263 cases remedied without prosecution.

AMONG the mountain resorts which are becoming quite popular this summer, are the Hotel Kaaterskill, Paxinosa Inn, Lake Hopatcong, and Swiftwater; the latter in Monroe county. Wernersville has several good hotels in its vicinity. No one who has not visited it would imagine that such beautiful mountain scenery is to be found within two or three hours' ride from Philadelphia.

IN his report upon the Convention for the revision of the U. S. Pharmacopœia of 1890, Dr. Benjamin graphically demonstrates the business capacity of the preceding committees. The work was given out to be published by a New York house, which realized profits of somewhere between $20,000 and $54,000, while the distinguished but stupid men who did the work received nothing.

"A SECOND SARAH."—A woman living in the mountains near Fort Smith, Ark., named Sarah Gates, aged seventy-one years, proved herself almost a second Sarah by giving birth to a well-formed and healthy male child. Two years ago, Mrs. Gates, then a widow, married William Gates, a young hired hand on her farm. The case is exciting a good deal of interest among physicians.—*Med. World.*

THE TIMES AND REGISTER stands out, solitary and alone, as the one and only medical journal that said a good word for Billing's census circular. If this doesn't make us solid for the next $30,000 investigating committee, then gratitude has ceased to inhabit the human heart.

THE remark that rabies flourishes in proportion to the development of Pasteur institutes, reminds us of a similiar objection made to vaccination. It was said that the number of vaccinations reported by the Board of Health was greatest during the times when small-pox was prevalent.

MINNEAPOLIS is wrongly supposed to be a wide-awake place; but an esteemed contemporary tells of one of her citizens who slept for three weeks at a stretch; only waking for food. As the case seems to have excited no comment in the Minneapolis journals, we suppose such somnolence is the usual state of that city. St. Paul papers please copy.

THE Misses Stewart, of Cincinnati, three Scotch ladies, have for two years kept a temperance restaurant in the Chamber of Commerce building. It was predicted that they could never make it pay if they refused to furnish beer; but the plucky Scotchwomen stuck to their principles, and their cooking is so good that they clear from $8,000 to $10,000 annually, besides paying a rent of $3,000 a year for their handsome premises.

The Pulte Quarterly takes a shy at the question of the eligibility of homœopathists for the Army and Navy Medical Corps, and quotes the army regulations to the effect that candidates must be graduates of a regular medical college. This is correct as far as concerns the army; but in the navy there is no rule requiring the applicant to be a graduate of any college. In fact, we know of at least one who entered the service before he graduated.

THE *St. Louis Medical and Surgical Journal* devotes an editorial to the alleged discovery of a fresh-water sponge as the microbic cause of eczema rubrum. The editor states that Dr. Wilkins sent him a slide upon which was a specimen obtained from the patient by his own hands; but which the editor declares contained, not sponge-spicules, but human spermatozoa. This is, to say the least, calculated to throw some doubt upon Dr. Wilkins' claims.

THE glorious Fourth supplied the Boston City Hospital with twenty-one injuries from explosions; the giant cracker figuring largely in the etiology. The *Boston Medical and Surgical Journal* says that a feature of these injuries is the splitting open of the base of the thumb, and production of a compound dislocation at the joint of the first metacarpal and the trapezium, so that the thumb and its metacarpal are connected with the hand only by the soft parts.

ONE hundred and fifty men, women and children, at a church picnic at Solon, near Iowa City, were prostrated last Sunday with serious symptoms of poisoning. In a few moments the people had fallen from the tables upon the ground writhing in pain. Physicians were summoned and administered remedies, in a few hours the patients recovered, no case being fatal. The use of water from a well long abandoned is given as the cause of the sickness.

THERE have been several cases of small-pox on the ship "Saratoga," landing at Mauritius, and some uneasiness is expressed. The local health board,

owing to contagious disease on the "Saratoga," and the possibility of the introduction of cholera from Europe, will establish a local quarantine station in Longue Isle Bay, where all suspected incoming ships will be thoroughly fumigated, and detained until the health officer is satisfied no trace of disease exists.

T. DE WITT TALMAGE says that no one can do with less than six or seven hours sleep per day; and warns his audience against the fairy tales of great men who slept but three or four hours a night. Americans need more sleep than they get, and the lack of it is one of the elements which render insanity and nervous diseases frequent. No man or woman ever yet kept healthy in body and mind for a number of years with less than seven hours sleep.

THE following report is made of the work at the Woman's Hospital for June: Patients treated in the house, 116; discharged, 47; new patients treated in clinic, 596; gynæcological, 177; medical, 113; surgical, 70; eye, 63; ear, throat and nose, 74; dental, 14; electrical, 85; visits to clinic, 2,615; new out-patients, 69; visits to out-patients, 310; operations in hospital, 55; births in hospital, 12; in out practice, 5; prescriptions compounded, 2,867; nurses in service at hospital, 44.

DURING May, New Orleans reported 600 deaths. The principal causes were:

Consumption	63
Cholera infantum	49
Diarrhœa	39
Pneumonia	32
Senile debility	26
Cancer	20
Bright's disease	16
Meningitis	13
Infantile debility	12
Bronchitis	11

HERE'S RICHNESS.—Adametz has isolated nineteen varieties of microbes in a single variety of cheese in the fresh condition. In each gramme he counted from 90,000 to 140,000 bacteria, which in seventy days had multiplied to 800,000. In the soft varieties the number is still greater: 1,200,000 in a gramme of cheese thirty-four days old, and 2,000,000 in another forty-five days old. These figures refer to the interior; in the rind, three to five millions of organisms were counted per gramme.—*Lyon Medical.*

THE Alvarenga prize of the College of Physicians of Philadelphia, consisting of $180—one year's income from the amount of the bequest of the late Dr. Pedro Francisco de Costa Alvarenga, of Lisbon, Portugal—has been awarded to Dr. R. W. Phillip, of the Victoria Dispensary, Edinburgh, for consumption and disease of the chest, for his essay on pulmonary tuberculosis. This is the first year that the prize has been awarded, and each year hereafter it will be awarded for the best memoir or unpublished work in any branch of medicine.

IN the monthly report of the Medical Superintendent of the Cherokee (Indian Territory) High Schools that on the female seminary (the pride of the Cherokee Nation) closes with this remark: "We have beautiful, roomy grounds at the seminary, and my advice to the young women would be to play base-ball, run and swing, get more of the good fresh air and sunshine, so as to develop the lungs. When a chief of the Cherokees was asked why the Cherokees are so much in advance of the other tribes, he replied: 'Because we have taken care to educate the women as well as the men.'"

THE Seventeenth Annual Session of the Mississippi Valley Medical Association will be held at Louisville, Kentucky, October 8, 9, and 10, 1890. The medical profession is respectfully invited to attend. The meeting promises to be of great social and scientific interest, as the profession of Louisville are doing their utmost to make it a success. Ladies accompanying physicians will be made especially welcome. Gentlemen wishing to read papers will please send titles as soon as possible to the Secretary, Dr. E. S. McKee, 57 W. Seventh street, Cincinnati. The American Rhinological Association will also meet in Louisville, October 6, 7, and 8, 1890.

THE Eighteenth Annual Meeting of the American Public Health Association will be held at Charleston, S. C., December 16, 17, 18, 19, 1890.

The Executive Committee have selected the following topics for consideration at said meeting:

1. Sanitary Construction in House Architecture; (*a*) Heating, (*b*) Lighting, (*c*) Draining, (*d*) Ventilation. 2. Sewage Disposal. 3. Maritime Sanitation at Ports of Arrival. 4. The Prevention and Restriction of Tuberculosis. 5. Isolation Hospitals for Infectious and Contagious Diseases. 6. Establishments in Favorable Climates for Persons having Tuberculous Predispositions; (*a*) Schools for Children and Adolescents, (*b*) Sanatoria, (*c*) Permanent Residence. 7. Miscellaneous Sanitary and Hygienic Subjects.

PATENTS issued during the past week. Reported by Charles G. Gooch, counsellor in patent cases.

Obtaining acetic acid and methyl alcohol	F. C. Alkier	Wieselburg, on the Erlauf, Germany.
Rosinduline sulpho acid	C. Schraube	Ludwigshafen, o. t. Rhine, Germany.
Remedial cosmetic	C. J Wilkins	Denver, Colo.
Fountain syringe	C. A. Tatum	New York, N. Y.
Making thio-oxydiphenylamine	M. Lange	Amersfoort, Netherlands.

TRADE MARKS.

Blood purifiers, tonics, and like remedies	W. S. Burnham	Cleveland, O.
Medicinal bark known as Cascara Sagrada	S. L. Jones & Co.	San Francisco, Cal.
Liniments capable of use externally and internally	W. M. Bagley & R. W. Tilford	Greenville, Miss.
Various medicinal remedies as specified	F. Eberlein	Chicago, Ill.
Natural mineral water	Coronado Water Co.	Coronado, Cal.
Remedy for diseases of the liver, kidneys, and stomach.	J. W. Jones	Americus, Ga.
Remedy for hog and chicken cholera	G. Riley	Fayetteville, Ark.
Suppositories for curing female diseases and piles	D M. Coonley	South Bend, Ind.
Bronchial syrup	G. S. Hull	Lowell, Mass.

LABEL.

"Emley's Liniment"	C. A. Emley	Wrightstown, N. J.

GERMAN MEDICAL DIPLOMAS.—In the numerous small free faculties of Germany, the medical students pass their examinations in the following manner:

"Do you smoke?" asks the examiner.

"Yes, sir," answers the student. "Will you have a cigar?" (*Hands the professor a pfenning cabbage leaf cigar.*)

"Tell me," says the professor (*slowly lighting his weed*), "what are a physician's principal duties?"

"To collect his fees, increase his practice, and exhibit his diploma from the time-honored "University of Guzzleburg," replies the student.

"Where shall you practice?" demands the professor, "and what are your duties towards me?"

"I shall go to America among the ignorant natives and make a golden harvest. And my duty towards you, Herr Professor, is to invite you to dinner for the rest of the semester," answers the student.

The professor smiles and says: "You are right. Let us go to a restaurant opposite and I will sign your diploma. The diplomas of the time-honored 'University of Guzzleburg,' are admired and respected in America. I have a cousin who is a doctor in Chicago. Let me tell you how the Indians chased him on Prairie avenue. He was wounded twice by their arrows and captured, but was released by his pursuers when they found on his person the time-honored diploma of the 'University of Guzzleburg.' Ah! here's the restaurant, and I will make out your diploma from the time-honored 'University of Guzzleburg.' "—*Lancet Clinic.*

WHILE cross-examining Dr. Warren, a New York counsel declared that doctors ought to be able to give an opinion of a disease without making mistakes.

"They make fewer mistakes than lawyers," responded the physician.

"That's not so," said the counselor; "but doctors' mistakes are buried six feet under ground, and lawyers' are not."

"No," replied Warren, "but they are sometimes hung as many feet above ground."

—*Montreal Legal News.*

WEEKLY REPORT OF INTERMENTS.—Deaths and Interments in the City of Philadelphia, from the 5th of July to the 12th of July, 1890:

CAUSES OF DEATH.	Adults.	Minors.	CAUSE OF DEATH.	Adults.	Minors.
Abscess of liver		2	Hemorrhage from brain	3	
" lungs	2		" umbilical		2
" throat		1	Homicide	1	
Aneurism of the aorta	1		Inflammation brain	2	15
Alcoholism	5		" bronchi	3	9
Anæmia	1		" bladder	2	
Apoplexy	9		" kidneys	1	1
Bright's disease	11	1	" heart	2	
Cancer, breast	1		" lungs	8	8
" stomach	2		" periton'm	7	1
" uterus	3		" pleura	1	
" liver	1		" s. & bowels	10	12
" pelvis	1		Insanity	1	
Casualties	8	2	Inanition	1	26
Congestion of the brain	1	9	Intussusception		1
" " lungs		3	Jaundice	1	
" " bowels		1	Marasmus		32
Child birth	1		Measles		1
Cholera infantum		97	Old age	14	
" morbus	1		Obstruction of the bowels	4	
Consumption of the lungs	32	7	Paralysis	11	
" " throat	1		Perforation of the bowels		1
Convulsions	1	21	Pyemia	2	
" puerperal	3		Rheumatism	1	
Croup		5	Scrofula		1
Cyanosis		5	Sore mouth		1
Debility	3	12	Softening of the brain	3	
Diabetes	2		Stricture of Æsophagus	1	
Diarrhœa	1	2	Suicide, cutting throat	1	
Diphtheria		10	" poison	2	
Disease of the hip	1		" shooting	1	
" " heart	15	4	Sunstroke	1	1
Drowned	5	2	Syphilis	1	
Dysentery	1	9	Tabes mesenterica		1
Dropsy, abdominal	2		Teething		2
" of the brain		4	Tetanus	1	
" ovarian		1	Tumor, brain	1	
Effusion of brain		1	" abdominal	2	
Fatty degeneration of the heart	2		" ovarian	1	
Fever, puerperal	2		" neck	1	
" scarlet		2	Ulceration of the stomach	1	
" typhoid	10	3	Uræmia	2	
Gangrene	1		Whooping-cough		9
Hernia	1		Total	225	328

TO CONTRIBUTORS AND CORRESPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from June 28, 1890, to July 10, 1890.

By direction of the Secretary of War, the following-named Assistant-Surgeons (recently appointed) will report in person for duty to the commanding officer of the various posts designated opposite their respective names:

First Lieutenant Frank R. Keefer, Fort Leavenworth, Kan.
First Lieutenant Thos. M. Raymond, Fort Sherman, Idaho.
First Lieutenant Henry D. Snyder, Fort Reno, Indian Ty.
First Lieutenant Allen M. Smith, Fort Snelling, Minnesota.
First Lieutenant Ashton B. Heyl, Fort Nebraska, Nebraska.
First Lieutenant Joseph T. Clarke, Fort Riley, Kansas.

Par. 6, S. O. 151, A. G. O., June 28, 1890, Washington, D.C.

CORBUSIER, WM. H., Captain and Assistant-Surgeon, is relieved from duty at Fort Lewis, Colorado, and will report in person to the commanding officer, Fort Wayne, Michigan, for duty. S. O. 151, par. 7, A. G. O., June 28, 1890, Washington, D. C.

BALL, ROBERT R., First Lieutenant and Assistant-Surgeon, is relieved from duty at Fort Riley, Kansas, and will report in person to the commanding officer, Fort Spokane, Washington, for duty. S. O. 151, par 7, A. G. O., June 28, 1890, Washington, D. C.

By direction of the Acting Secretary of War, leave of absence for four months is granted Major James P. Kimball, Surgeon, to take effect when an officer of the Medical Department is assigned by his department commander to relieve him. Par. 6, S. O. 152, A. G. O., July 1, 1890, Washington, D. C.

ROBINSON, SAMUEL Q., Captain and Assistant-Surgeon, is relieved from temporary duty at the U. S. Military Academy, West Point, New York, to take effect upon the arrival there of Captain W. Fitzhugh Carter, Assistant-Surgeon, and will report in person to the commanding officer, Fort Du Chesne, Utah Territory, for duty, relieving Captain Curtis E. Price, Assistant-Surgeon. Captain Price, on being relieved by Captain Robinson, will proceed to Fort Wadsworth, New York Harbor, and report in person to the commanding officer of that post for duty, relieving Captain Robert B. Benham, Assistant-Surgeon. Captain Benham, on being thus relieved from temporary duty at Fort Wadsworth, will report in person, without delay, to the commanding officer, Fort Hamilton, New York Harbor, for duty. Par. 12, S. O. 153, A. G. O., July 2, 1890, Washington. D. C.

GARDINER, JOHN DE B. W., Captain and Assistant-Surgeon, having been found incapacitated for active service by an Army Retiring Board, and having complied with paragraph 12, S. O. 135, June 10, 1890, from this office, is, by direction of the Acting Secretary of War, granted leave of absence until further orders, on account of disability. Par. 3, S. O. 153, A. G. O., July 2, 1890, Washington, D. C.

By direction of the Secretary of War, the leave of absence on surgeon's certificate granted Captain Marcus E. Taylor, Assistant-Surgeon, S. O. 45, June 13, 1890, Division of the Pacific, is extended five months, on surgeon's certificate of disability, with permission to go beyond sea. Par. 6, S. O. 159, A. G. O., July 10, 1890.

Changes in the Medical Corps of the U. S. Navy for the two weeks ending July 12, 1890.

PAGE, J. E., Assistant-Surgeon. Ordered to hospital, Mare Island, Cal.

KENNEDY, R. M., Assistant-Surgeon. Ordered to the League Island Navy Yard, Pa.

RIXEY, P. H., Surgeon. Leave of absence granted for fifteen days.

OGDEN, F. N., Assistant-Surgeon. Promoted to be a Passed Assistant-Surgeon.

WHITE, S. STUART, Assistant-Surgeon. Promoted to be a Passed Assistant-Surgeon.

ATLEE, L. W., Assistant-Surgeon. Granted three months' leave of absence.

WOOLVERTON, T., Medical Inspector. Await orders to the U. S. S. "Philadelphia."

LOVERING, P. A., Passed Assistant-Surgeon. Await orders to the U. S. S. "Philadelphia."

MCMURTRIE, D., Medical Inspector. Granted leave of absence for thirty days.

Medical Index.

A weekly list of the more important and practical articles appearing in the contemporary foreign and domestic medical journals.

Antipyrin in children, Dessau. Jour. Amer. Med. Ass'n.
About batteries, Liebig. N. E. Med. Monthly.
Anti-septics in stricture urethra, Southam. The Lancet.
Arthritis complicating vulvo-vaginal inflammation in children, Koplik. N. Y. Med. Jour.
Aristol, Humphrys. Texas Courier-Rec. of Med.
Action of tendo-achilles, Wirt. Med. Record.
Acutely insane in general hospitals, treatm. of, Spratling. *Ib.*
Acide carbonique liquide, de ses applications à l'hygiene et à la therapeutique des bains de gaz carbonique, Peyrand. Jour. de Med. de Bordeaux.
Aberrant sexual differentiation, Lydston. West. Med. Rep.
Anwendung der Salicylsäure bei Behandlung der venerischen Geschwüre, Janovsky. Intern. Klin. Rundschau.
Criminal jurisprudence as affecting inebriety, Kerr. Jour. Amer. Med. Ass'n.
Cystitis als Complication des Diabetes, Schmitz. Berliner Klinische Wochenschrift.
Climatology and diseases of South. California, Bullard. South. California Pract.
Cerebral localization, Ferrier. The Lancet.
Cæsarean section in moderately contracted pelvis, Murray. N. Y. Med. Jour.
Clinical use of electricity in the diseases of women, Bevill. Texas Courier-Record of Med.
Corps étranger enfoncé dans la cavité buccale et sorti au bout de dix mois dans la region cervicale posterieure, Wagnier. Revue de Laryngol. D'Otol.
Considerations historiques sur les maladies de l'estomac et sur leur traitement, Beaumetz. Bulletin Gen. de Therap.
Cascara sagrada for constipation, Aulde. N. Y. Med. Jour.
Consanguineous breeding, relation to scrofula and tuberculosis, Brush. *Ibid.*
Cerebral localization, Ferrier. Brit. Med. Jour.
Cirrhosis of the liver in childhood, Edwards. Arch. of Pediat.
Cholecystectomy, Præger. Montreal Med. Jour.
Drunkenness and general paralysis, Wright Jour. A. M. Ass'n.
Diarrhœa in early life, Chapin. Med. Record.
Der Einfluss der Antisepsis auf geburtshülfliche Operationen und die hieraus resultirenden Aufgaben der modernen Geburtshülfe, Duhrssen. Berl. Klin. Wochenschrift.
Des troubles oculaires dans le tabes dorsal et la théorie du tabes, Berger. Recueil d'Ophtalmol.
De la dyphterie, Simon. Le Bulletin Med.
De l'angine de poitrine, Leduc. L'Union Med.
Employment of the cataphoric action of galvanic current for removal of syphilitic new-growths, Woodbury. Med. News.
External surgery of the nose, Ricketts. Jour. Am. Med. Ass'n.
Electrolysis in urethral strictures. Palmer. Lanphear's Index.
Enucleation of goitre, Keen. Med. News.
Fall von Antifebrinvergiftung, Wolff. Deutsche Med.-Ztg.
Genital origin of asthma in women, Reed. Cin. Med. Jour.
Herpes zoster of mouth, Hugenschmidt. Med. News.
Hygienic condition of our streets, Dowd. Med. Rec.
Hæmorrhagic urticaria, Wills. The Lancet.
Head-nodding and head-jerking in children, Hadden. *Ibid.*
Hygroma chronique du genou guéri par la ponction suivie d'injection de liqueur de van Swieten, Massy. Journal de Med. de Bordeaux.
Hyderabad chloroform commission, McKendrick. Br. Med. J.
Immigration and its dangers at New York, Smith. Sanitarian.
Intra-pelvic surgery, year's work, Hall. Cin. Lancet-Clinic.
Intervention chirurgicale dans les cyclites circonscrites suivies de straphylome, Galezowski. Recueil d'Ophtal.
Infantile paralysis, Spencer. Canadian Practitioner.
Intra-cranial tumor, Thistle. *Ibid.*
Kurze Mittheilungen über die Wirkung des Bromoforms bei Keuchhusten, Löwenthal. Berl. Klin. Wochenschrift.
Klinische Beobachtungen über die entzündliche Leukocytose, Pick, Prager Med. Wochenscrift.
Klimatische Behandlung der Lungenschwindsucht, Peters. Deutsche Medicinal-Zeitung.
Le malattie infettive specifiche e non specifiche. La Rif. Med.
Laryngeal cramp, Foster. Lanphear's Index.
La non specificite anatomique des lesions microbiennes. La Tribune Medicale.
L'origine de l'appareil renal des vertebres et la theorie des segments vertebraux, Pilliet. *Ibid.*
Les couleurs d'aniline comme antiseptiques, Capitan. La Medicine Moderne.
Loss of brain substance, recovery, Holmes. Memphis Med. M.
Le fer rouge appliqué à la cure de certaines affections oculaires, Festal. Journal de Med. de Bordeaux.
Meningitis from inflammation of the tympanum, Green Boston Med. and Surg. Jour.
Multiple arsenical neuritis, Stark. Med. Record.
Milk sterilization, Currier. N. Y. Med. Jour.
Malarial hæmaturia, Stadler. Texas Cour.-Rec. of Med.
Malarial fevers, Boyce. St. Joseph Med. Herald.
Metrites, endometrites chroniques et leurs variétés, leur pathogenie, leurs traitements locaux, Abeille. Gaz Gynecol.
Mesenteric and omental cysts, Wells. Brit. Med. Jour.
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Note sur l'influenza, Tisné. La France Med.
Nervöse und psychische Störungen nach Extirpation beider Hoden, nebst einigen Bemerkungen zur Pathogenese dieser Erscheinungen in der natürlichen und künstlichen Klimax, Weiss. Wiener Med. Presse.
Obstinate dropsies, management, Tyson. Med. News.
Oedeme aigu du larynx, Oulmont. La Med. Mod.
Ouvertures des abces de la trompe et de l'ovaire par la laparotomie, Terrillon Le Bull. Med.
Obscure febrile attacks in the course of chorea, referable to endocarditis, Finlayson. Archives of Pediatrics.
Primary progressive myopathy, Sachs. Med. News.
Physical culture as taught abroad, Hurd. Boston M. S. Jour.
Partial laryngectomy for carcinoma, Thorner. J. A. M. A.
Penetrating gunshot wounds of the abdomen, Schachner. Annals of Surgery.
Progress of sanitary legislation and regulations in the United States, Moore. Sanitarian.
Premières recherches sur la nature et l'etiologie du tetanos, Verhovgen and Baert. Jour. de Med.
Puerperal convulsions, M'Cracken. Lauphear's Kans. C. M. I.
Phlebite variqueuse, phlebites multiples purpura, embolie pulmonaire, endo-pericardite infectieuse probable, Handjian. La France Medicale.
Purulent ophthalmia, Andrews. N. Y. Med. Jour.
Pyæmia in a man seventy-one years old, Heatly. *Ibid.*
Psilosis, Thin. British Med. Jour.
Paralysis, general surgical treatment of, Shaw. *Ibid.*
Pourquoi ne pas soigner l'enfant, Lachapelle. L'Union Med.
Relations of the Massachusetts Medical Society to medical education, White. Boston Med. and Surg. Jour.
Recent advances in surgery, Dixon. N. E. Med. Monthly.
Rachitis and resulting deformities, Gillette. Northw. Lancet.
Reflex ocular and facial symptoms of nasal disease, Peck. Int. Dental Jour.
Radical cure of polypi of the nose, Griffin. Med. Rec.
Salol, its antiseptic use in diseases of the genito urinary system, Mumford. Boston Med. and Surg. Jour.
State-medicine, Carroll. The Sanitarian.
Sul salasso. La Rif. Med.
Su di un caso di sifiliee gommosa con carat terri di carcinoma dell' asta, Cucca. *Ibid.*
Su di una rara forma di spasmo ritmico respiratorio e sulla temperatura dopo gli accessi convulsivi in un caso di isterismo traumatico, Cristiani. *Ibid.*
Surgery of the knee-joint, Dandridge. Cin. Lancet-Clinic.
Sur une forme particulaire de la maladie de Friedrich, Dejerine. La Med. Mod.
Successful brain-grafting, Thompson. N. Y. Med. Jour.
Sur la comparaison des données de l'auscultation otoscopique du diapason-vertex et de son audition par le sujet, sous l'influence de la deglutition, Gelle. Revue de Laryngol. d'Otol.
Sur le mecanisme des accidents et de la mort par le chloroforme, Laborde Bulletin de l'Acad. de Med.
Syphilis nasale infantile, Laviolette. L'Union Med.
Summer complaint, Christopher. Cin. Med. Jour.
Supra-vaginal hysterectomy, Kelly. Med. News.
Sachen d. Nephrorrhaphie, Frank. Berl. Klin. Wochenschrift.
Tropho-neurosis of the oral cavity, Lydston. J. Am. Med. Aas'n.
Therapie der Syphilis, Kaposi. Wiener Med. Presse.
Tuberculosis of the pleura and lung, surgical treatment of, Tillmanns. Brit. Med. Jour.
Un cas de mutisme hysterique, guérison par sugestion pendant le sommeil hypnotique, Charazac. Rev. de Lar. d'Otol.
Work of the Marine Hospital Bureau, Hamilton. Sanitarian.
Zur Lehre von der Genese der Kalk-Concretionen in der Leber des Menschen, Schwertassek. Prager Med. Woch.
Zur Wuthfrage, Blumberg. Centralblatt.

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PAGE

ORIGINAL ARTICLES.

CHOLERA INFANTUM A NEUROSIS. By Alexander Harkin, M.D., F.R.C.S. - - - 73
MOUNTAIN FEVER. By William Treacy, M.D., Helena, Mont. - - - - - - - - 75
ELECTRICITY IN ITS MEDICO-LEGAL RELATIONS. By Clark Bell, Esq. - - - - - - 78
DRIFT OF AMERICAN MEDICAL JOURNALISM. By T. D. Crothers, M.D. - - - - - 80

SOCIETY NOTES.

KENTUCKY STATE MEDICAL SOCIETY - - - 82
Pioneer Medical Men and Times in Kentucky. *Ouchterlony* - - - - - - - - 82
Gunshot Injury of the Spine, with Paralysis; Death After Four Years. *Alderson* 83
Two Cases of Ectopic Gestation Cured by Abdominal Section. *Bernays* - - - - 83
BERKS COUNTY MEDICAL SOCIETY - - - - 83

THE POLYCLINIC.

PHILADELPHIA HOSPITAL:
Scurvy. *Walker* - - - - - - - - - - - 83
Typhoid Complicated by Rheumatism. *Walker* - - - - - - - - - - - - - - 84
Morning Diarrhœa. *Walker* - - - - - 85

EDITORIALS.

IS ALL DISEASE NEUROTIC? - - - - - - 86

PAGE

ANNOTATIONS.

Another Important Discovery - - - - - - 87
Annoying Questions - - - - - - - - - - 87
Insight Into Hospital Life - - - - - - - 87
Treatment of Typhoid Fever by Continuous Immersion - - - - - - - - - - - - 87
Case of Mistaken Diagnosis - - - - - - 87
Post epileptic Automatisms - - - - - - 87
Ungrateful Jersey - - - - - - - - - - 88

BOOK REVIEWS.

German Archives of Clinical Medicine. *Munich* - - - - - - - - - - - - - - 88
Leçons sur les Maladies du Larynx. *Moure* 89
Practical Sanitary and Economic Cooking. *Abel* - - - - - - - - - - - - - - 89

PAMPHLETS - - - - - - - - - - - - 89

THE MEDICAL DIGEST.

Hydracetin. *Basch* - - - - - - - - - - 89
Red Bilberry - - - - - - - - - - - - 89
Camphor in Olive Oil - - - - - - - - - 89
Iodism. *Grœnow* - - - - - - - - - - - 89
Methylene Blue - - - - - - - - - - - 89
Phenacetine as a Hypnotic. *Porcher* - - - 89
Chronic Articular Rheumatism. *Hochhalt* - 89
Naphthol - - - - - - - - - - - - - - 89
A New Invention. *Seaman* - - - - - - - 89
Renal Calculus Removed by Operation. *Franks* - - - - - - - - - - - - - - 89

PAGE

Cancer. *Muller* - - - - - - - - - - - 89
Effects of Castor Oil. *Jones* - - - - - - 89
Methacetin. *Meinert* - - - - - - - - - 89
Enphorbia Pilulifera. *Workman* - - - - 89
Rheumatism. *Bell* - - - - - - - - - - 90
Comma bacilli in Cholera Stools. *Cunningham* - - - - - - - - - - - - - - - 90
Empyema. *Fernet* - - - - - - - - - - 90
Multiple Vesical Calculi. *Cunningham* - - 90
Cascara Amarga. *Haines* - - - - - - - 90
Anthrax. *Casson* - - - - - - - - - - 90
Bromide of Ethyl. *Hoffner* - - - - - - - 90
Voluntary Borborygmus. *Richardson* - - 90
Salol in Cholera. *Hehir* - - - - - - - - 90
Inversions of the Uterus. *McCoy* - - - - 90
Diet for Obesity. *Davies' Food for the Fat* - 90
Acute Confusional Insanity. *Norman* - - 90
The Treatment of Cystitis in Women. *Madden* - - - - - - - - - - - - - - - 91
Gleanings from *The Medical World* - - - 91
SPANISH TRANSLATIONS. *Hutchinson* - - 91
Cocaine in Short Operations. *Rio* - - - 91
Treatment of Gonorrhœa. *The Medical Press* - - - - - - - - - - - - - - - 91

MEDICAL NEWS AND MISCELLANY, 93

MEDICAL INDEX - - - - - - - - - 96

NOTES AND ITEMS - - - - - - iv, xiv

Original Articles.

CHOLERA INFANTUM A NEUROSIS.

BY ALEXANDER HARKIN, M.D., F.R.C.S.,
Consulting Physician, Mater Infirmorum Hospital, Belfast.

THE editorial article in THE TIMES AND REGISTER of June 14, with its portentous announcement "that twenty deaths from cholera infantum had occurred in Philadelphia during the previous week, and that the annual slaughter of the innocents had begun," warns me that I should, without further delay, fulfil a long-formed intention of requesting an opportunity, through the pages of that influential journal, of placing before its readers, and the American medical profession generally, a statement of my matured views and experiences upon the nature and treatment of choleraic disorders.

It is not often in medical literature that a writer feels justified, or possesses the moral courage to advance a statement that partakes, even in a moderate degree, of the nature of a pathological principle or law of disease; that he can trace the symptoms of allied disorders to a common source; that he can analyze matters of fact, general or elementary, show their actual relations to each other, and deduce from them an ultimate fact or principle; and, finally, sustain his hypothesis by appealing to the result of successful treatment founded on and in accordance with his published views.

The object which I propose to myself in this paper is to demonstrate that for the group of diseases—including cholerine, cholera infantum, choleraic or summer diarrhœa, cholera nostras, and Asiatic or epidemic cholera—having an unity of essence, an identity of nature, and a neurotic origin, there exists a common principle of treatment, and a reliable therapeutic remedy.

The publication of the death-roll from cholera infantum, and the free admission that the "annual slaughter of the innocents has begun," precludes the necessity, on my part, of commenting upon the inefficacy of the conventional treatment, followed by such painful results; these statements suggest the absence of sound etiological conceptions, and the want of a guiding principle of treatment deducible therefrom, and explain the apparent necessity that exists for treating symptoms when the disease itself may not be grappled with. Scientific medicine has suffered much from the incursions of novelties and the experimental methods of recent years. The ignis fatuus of the germ hypothesis has led men's minds astray from the sober path of clinical observation and therapeutic experience; and, while dazzled with the blandishments of bacillary investigations, physicians have too often ignored their chief duties—the alleviation of pain and the cure of disease. All must agree with the dictum of Virchow[1]: "that the discovery of the cholera bacillus, any more than that of the bacillus of tuberculosis, has not in the slightest degree contributed to the cure of phthisis or of cholera; while, by proclaiming through the agency of the microbe the infectious nature of these diseases, these speculatists have added another to their normal terrors.

I have always regarded cholera infantum, as well as Asiatic cholera, as a neurosis; indeed, Cullen, in his synopsis, has included both diarrhœa and cholera in the order Neurosis, and class Spasm; and Dr. Henry Maccormac,[2] whose pupil and assistant I was in the Belfast Cholera Hospital during the epidemic of 1834, taught that cholera was due to a lesion of the sympathetic system in the abdomen; and the results of my own observation and experience since that date have but

[1] Vide *Archiv Med.*, October, 1884, p. 173.
[2] Maccormac's Exposition of the Nature of Cholera. Belfast, 1832.

strengthened my conviction on this point. The opinion that choleraic disorders differ only in degree, and not in nature, is also held by many of the highest Indian and European authorities. Sir James Fayrer,[1] for instance, writes: "The fact is that cholera presents many phases and symptoms, varying in gravity from simple malaise to profound collapse; sporadic cholera is often spoken of as though it were a different disease to the Asiatic cholera. For my own part, I believe that *cholera* is *cholera* wherever it occurs, and its epidemic prevalence and intensity are phases or accidents in its history."

Dr. Guerin, at the Academy of Science, read a paper showing "that the distinction between different forms of cholera was purely arbitrary, the malady only differing in intensity. Dr. Dutricus Bey,[2] of Alexandria, asserts that the distinctions between Asiatic cholera and cholera nostras were but an arbitrary and artificial device," and Surgeon-General J. M. Cunningham,[3] in a recent report to the Governor of India makes a similar statement. As to the etiology of choleraic disorders, whatever the remote or predisposing cause, telluric or atmospheric, when in their actual presence I have at once recognized their neurotic natures, and treated them accordingly; the agency of the nervous system is apparent in every prominent symptom; the vomiting and purging evidently depend on derangement of innervation in the stomach and intestines; the spasms and cramps, the tremors, betray their nervous origin; and the symptoms of collapse, according to Claude Bernard, are dependent upon great irritation and hyperæsthesia of the sympathetic nervous system; while to the vaso-motor nerves may be accredited that depression of respiration and circulation, the most dangerous symptoms in this class of diseases. Assuming, then, that it is in reality the sympathetic nervous system that is at fault in choleraic diseases; it follows, that in seeking for a remedy, we should select one capable of controlling and influencing it. Thanks to modern physiological research, and clinical observation, that desideratum has been found in a cerebro-spinal nerve, the pneumogastric or vagus in the neck; it is found that when this nerve is properly stimulated, it immediately developes its inhibitory powers, equally in cholerine, as in the algid stage of spasmodic cholera. It is only necessary, in either case, to apply the liquor epispasticus of the British Pharmacopœia with a camel's-hair pencil in a narrow stripe over the sheath of the pneumogastric in the neck, extending from the mastoid process to the angle of the lower jaw. The effect is almost instantaneous, the purging, the vomiting, and cramps immediately cease, the patient generally falls asleep, and awakens cured, long before the vesication is complete. Stimulation of that part of the sympathetic nerve going to the heart, is followed by increased forcible contractions, but stimulation of the vagus going to the heart may cause its stoppage in complete diastole. Counter-irritation over the vagus also restores the cardiac inhibitory functions of the nerves so often in abeyance in choleraic illness; through its influence the violent contractions and palpitations of the heart are subdued, the dilating power of its walls and cavities, especially of the left side, is restored, and the stasis of the pulmonary and arterial systems is put an end to. In extreme cases, the rapid action of the galvanic current might be invoked with advantage, meanwhile I have latterly discarded every auxiliary measure, and depended alone on the topical remedy. One collateral advantage in its application is, as Doctor Harry Poole Berry, of Grantham, Lincoln, observes, "that it is at any rate a method of treatment which is attended with no risk, and in no way interferes with any other treatment which the practitioner may see fit to carry out." And so, to the timid or cautious practitioner I would add, for the nursling or the adult total ablactation is necessary, as there is nothing so irritating to the intestinal tract in choleraic troubles, as the casein contained in the lacteal secretion, whether human or bovine. As a substitute arrow-root boiled in water, with the addition of port wine, condensed milk, beef tea freed from fat, and starchy foods, may be given; as beverages soda water and iced water, barley water, a weak solution of chlorate of potash; as a galenical dilute sulphuric acid holds the first place; rest in bed with every appliance capable of maintaining bodily heat in trunk and extremities, turpentine and mustard epithems, are useful auxiliaries; but the one thing *indispensable is the counter-irritation over the vagus.*

In the actual presence of an epidemic where every practitioner may, without much trouble, satisfy himself of the value or otherwise of my teaching, much corroborated evidence is not so necessary. I shall, however, as customary in any new departure, adduce a few examples and proofs of its efficacy; and, in the first place, from an English physician, personally unknown to me, Dr. Berry, already quoted; who stated in writing to the editor of the *Lancet* on October 7, 1885: "I have tried the external application in the manner described by blistering behind the angle of the jaw in at least twenty cases, which were more or less severe, and occurring in patients from infancy to old age. In all the cases it has been attended with marked and immediate success, the vomiting and diarrhœa being controlled almost at once, and in some of these cases I had previously tried acid and opium, catechu, chalk and logwood in usual doses."

Cholera Infantum.[1]—On September 24, 1884, I was summoned to a child, living in Upton street, Belfast, aged twenty months, and saw her at 11.30 P.M. I found the child lying prone on the mother's knees, with its arms and legs lying listlessly on either side; it was cold and feeble, and almost pulseless, and was vomiting and purging at the same time. I was informed that the child had sickened at 6 P.M., same evening, and had vomited at least every quarter of an hour, till my arrival. The mother had, previously to my visit, administered milk and lime-water, without any benefit. I did not prescribe any medicine, but, having placed the child on its back, I applied the blistering fluid behind both ears and on its neck. Soon after the application the child fell asleep, and, after the expiration of half an hour, I left for the night. Calling at 10 o'clock A.M., next day, I found the child in its mother's arms, quite lively and well; neither vomiting nor purging had returned.

Cholera Nostras.—Constable C. sent for me to Queen street Police Barracks, on 18th September, 1883, at 8.30 A.M. I found him in the act of vomiting, with small quick pulse, violent cramp, forcible palpitation of the heart, great debility, fainting, and coldness of the extremities. He was purged at frequent intervals, and the dejecta were of the usual rice water character. He said that when on duty in the police cells, he was attacked with profuse vomiting, followed an hour af-

[1] On the Origin, Habits and Diffusion of Cholera. By Sir J. Fayrer, K.C.S.I., M.D., F.R.S.

[2] International Congress of Hygiene, September 1, 1834. *The Hague Lancet.*

[3] *Lancet*, July 28, 1884.

[1] *Vide Lancet*, August 16, 1884. Art. Cholera.—*A. Harkin.*

ter by violent purging and cramps; an attack occurring about every fifteen minutes. I did not prescribe any internal or external medicine, but painted him at once in the hollow behind the ears, down as far as the angle of the lower jaw, with the liquor epispasticus B. P., assuring him at the same time that he would not have any recurrence of the symptoms. I visited him again at 10.30 A.M., and found him convalescent, not having had either sickness or purging, as I had predicted.[1]

Epidemic Cholera, Malta,[2] reported by Dr. Inglott, District Medical Officer. Giuseppe Galt, forty-two years of age, shopkeeper, residing at Vicolo, San Francesei, Zabbaz, assisted his wife with great assiduity; his wife refused to undergo the vagus treatment, and died from spasmodic cholera thirty hours after the attack. After four hours from the death of his wife the husband was seized with violent diarrhœa, I was called to visit him at his residence. The following are the symptoms which I observed: Diarrhœa very intense (rice water), vomiting, eyes very hollow, lips violet, body cold, voice feeble, pulse weak, respiration disturbed, sense of oppression, thirst intense, cramps very severe in the lower extremities, general debility, suppression of urine.

Treatment: Injections of ether; vesication very strong over the vagus on both sides of the neck. After two hours I visited the patient again, and found that he had slept nearly one hour; cramps stopped, pulse became active, diarrhœa suppressed, passed urine freely. I called again to visit the patient in the afternoon, and found him weak, but recovered. The vagus treatment acted like magic!

This case is one of many, cured in the cholera hospitals of Malta, and reported by Drs. Inglott and Cannataci, during the epidemic of 1887. Dr. Inglott adds: "I have no hesitation to state that Dr. Harkin's treatment is a remedy both reliable and speedy in its action, in all severe cases of cholera."

I need not multiply instances; I have thus submitted proofs of the curative power of the simple remedy in the three great phases of cholera; as all are in the same category, the evidence of its efficacy in either case affords corroborative proof of its beneficial influence in the others; and I conclude by commending this paper, hastily compiled, to the kind consideration of my American medical brethren.

MOUNTAIN FEVER.

By WILLIAM TREACY, M.D.,
HELENA, MONT.

SEVEN years ago I located in Montana for the purpose of practising medicine. Upon inquiry, I was informed that the most prevalent disease was a separate and distinct type of fever called mountain fever. I had practised medicine in Indiana and in Chicago, Ill., and was familiar with typhoid, remittent, bilious, and typho-malarial fevers, and expected to find something new and different from any one of them.

Mountain air, I was informed, would not permit the typhoid germ to exist; that all "pilgrims," as recent arrivals are called, must necessarily have mountain fever before becoming acclimated.

As a rule, the pilgrim, on coming to the mountains, has an appetite that would need the digestive apparatus of an ostrich; an excessive quantity of food is taken, and the digestive apparatus upset.

The summer and fall months are the fever months. During the months of July and August the temperature is often very high, frequently 105° in the shade, while the evenings are quite cool. Improper clothing is worn, and the sudden changes predispose to chill.

During the time that the Northern Pacific, the Great Northern and branches were being constructed, a large number of men were employed as graders. These employés were chiefly foreigners, and lived like cattle herded together in tents, dugouts, and rudely constructed log-cabins, sometimes forty or fifty bunking in the same small tent or cabin; they were careless about their food, and uncleanly in their habits. A great many cases of so-called mountain fever developed among those employed on the railroad work, usually a remittent type, commencing with lassitude, loss of appetite, pains in limbs, very severe constipation, headache and backache, followed by a chill (not as well marked as in pneumonia) within twelve hours, and rapid rise of temperature soon after chill, usually 104°; heavy white coating on tongue, and bitter taste in the mouth; very restless and always unable to sleep, unless large doses of bromide are given. The difference in morning and evening temperature is usually two degrees. Fever yields nicely to treatment, and patients usually recover in about three weeks. The death-rate is small in uncomplicated cases; about two per cent.

Then, we have many cases of typical typhoid fever, with varied symptoms, and, I believe, modified by elevation and pure air. In these the invasion is gradual, tired feeling, accompanied by chilliness, dullness, epistaxis, diarrhœa, abdominal tenderness, gurgling in right iliac fossa, tympanites, rose eruption and hemorrhage of the bowels, bed sores and cellulitis, and sometimes intestinal perforation and death, unfortunately the same as you do in the lower altitudes.

During 1885 they had a number of undoubted typhoid cases in Deer Lodge, in this State, contracted from drinking water. Upon investigation the water was found to have been contaminated by seipage through a gravel subsoil from water-closets in close proximity.

At Helena we have an excellent system of sewerage, and consequently few cases of typhoid; but a great many cases occurred last year among the men engaged in digging the trenches for sewer pipe.

We are still looking for "mountain fever" that is a distinct, specific form of fever indigenous to mountain regions only; thus far we have found as the nearest approach to it, according to the information given us about it, the usual remittent type, modified of course by the great amount of ozone in our altitude, differing in no respect from the remittent fever found in the East, and yielding to treatment in much the same manner; and, I think, my medical brethren in the East will agree with me in declaring the much-talked of mountain fever to be a myth, or, at best, a term improvised by the frontier settlers for our old-fashioned, familiar, every-day remittent fever, so well known to Eastern practitioners.

REPORTS FROM ST. PETER'S HOSPITAL, HELENA, MONTANA.

George Benedict, aged twenty-five. Dr. Treacy. Gunshot wound. Compound comminuted fracture of femur at trochanter. Accident occurred on Wednesday, September 27, 1887; patient arrived at hospital Sunday, October 2, having travelled during that time, by boat, stage and train.

Wound irrigated with sol. bichloride mercury, 1 in

[1] *Vide Lancet*, August 16, 1884. Art. Cholera.—*A. Harkin.*

[2] The Vagus Treatment of Cholera in Malta, 1887. By Alexander Harkin, M.D., F.R.C.E. London, Bingham, Strand.

5,000 to 7,000, five times during twenty-four hours; moist dressing applied; drainage-tube.

Patient developed enormous bed-sore second day after admission to hospital; removed to canvas cot with a hole cut in it, through which to dress the bed-sore, and another, through which to dress the wound. (Impromptu surgical bed). Discharged May 14, 1888; complete cure. Temperature did not rise above 101° during entire stay in the hospital.

Brady Hanson, January 16, 1889. Dr. Treacy. Fell down shaft, ninety-two feet. V-shaped cut in forehead, requiring sixteen stitches, two through the cartilage of the nose, four through upper lip, and three through the lower lip—twenty-five stitches in all; no anæsthetic. Discharged cured, February 2.

Isaac Loftus, January 16, 1889. Dr. Sligh. Victim of giant-powder explosion; double amputation; right arm taken off just below elbow, left hand disjointed at wrist; six stitches in lower lip. Operation performed by Dr. Sligh, assisted by Drs. Cole and Dean. Discharged May 6. Stumps healed, ready for artificial hands; no abnormal temperature.

James Letcher, April 18, 1889. Dr. Treacy. Cellulitis of hand; little finger amputated at Elkhorn, by Dr. Brooke. Incisions made and injected twice daily; peroxide of hydrogen used. Discharged cured, June 9.

P. J. Cunningham, June 24, 1889. Dr. Treacy. Suppurative synovitis of knee; incision made; drainage-tube introduced; irrigated daily with sol. bichloride of mercury, 1 in 5,000. Discharged cured, August 19.

Charles Buell, June 26, 1889. Dr. Treacy. Lacerated wound of hand, done with circular saw; third finger amputated at second joint July 15; left July 31.

Frank Siple, July 12, 1889. Dr. Treacy. Brakeman, Northern Pacific Railroad. Seven cars passed over his arm. Amputation just below shoulder—Dr. Treacy, assisted by Dr. Barbour. Patient got up and dressed July 19; transferred to railroad hospital at Missoula, July 21. Discharged, stump healed, July 31.

Mrs. Young, Feb. 4, 1890. Dr. Treacy. As far as could be learned, patient had pleurisy, right side, a result of la grippe, at her residence, seventy-five miles out, two weeks prior to entering hospital. Dr. Treacy made a diagnosis of pleurisy with effusion, and wrote her husband in order to gain his consent to operation. Patient died two hours before his arrival, Feb. 8. Heart failure, result of journey.

John Clark, Dec. 28, 1888. Dr. Treacy. Patient presented appearance of pneumonia on admission to hospital. Dec. 30, developed rötheln. Jan. 2, a decided case of pneumonia; convalescent Jan 15. Jan. 22, pleurisy with effusion, right side. Jan. 23, aspirated, ℥xxiv fluid drawn off. Jan. 30, incision made and drainage tube inserted. Discharged cured, March 2.

Henry Meyers, aged forty-five, Jan. 16, 1889. Dr. Treacy. Feet and hands badly frozen; line of demarcation appeared just below ankle-joint. Jan. 23, double amputation just above ankle joint. Dr. Treacy, assisted by Drs. Dean and Pleasants. First and middle finger of right hand taken off at second joint; also first of left hand. June 11, patient put on a pair of Marks' artificial feet, and left hospital July 1; no high temperature after operation.

Hugo Freyler, Feb. 6, 1888. Operation for empyema; drainage-tube inserted by Drs. Cole and Sligh. Discharged cured, March 26.

James Murray, aged twenty-one, Northern Pacific newsboy, cerebro spinal meningitis. Dr. Treacy. April 8, 1888. Very delirious first three weeks; could not be kept in bed; diarrhœa set in; continued remaining three weeks of his life; twelve to fourteen stools in twenty-four hours, resembling chopped spinach. Died, May 18.

Frank Disreau, French, wood chopper, April 7, 1888. Dr. Treacy. Incised wound of leg. Wound did not heal; on investigation it was found that it had been sewed up with cord and wire. Cellulitis. Wound opened up and drainage tube inserted; irrigated twice daily. Hot fomentations kept up for a week. Discharged cured May 6.

Martin Westfall, aged forty-six, May 19. Dr. Sligh. Froze his foot in January; amputated first joint of little toe himself; entered hospital May 19, 1888; foot badly swollen and inflamed. Dr. Sligh amputated large toe and remainder of small one, May 26. Still the foot did not do well. Amputation made above ankle-joint, by Dr. Sligh, assisted by Drs. Atchison and Barbour, June 6. Left hospital August 15. Stump healed. Syphilitic history.

Harry Sherman, aged eighteen, May 18, 1888. Dr. Treacy. Inflammation of knee-joint. Hot fomentations applied to knee until May 21, when incision was made and drainage tube introduced. Chill daily, followed by a temperature of 103–104°. Pulse 110 to 120. Flow of pus profuse; constant diarrhœa, which, when checked, caused increased flow of pus, and vice versa. Patient fearfully emaciated. August 24 Dr. Treacy injected peroxide of hydrogen; flow of pus lessened; used the peroxide H. daily, with good result; fever checked; appetite returned; patient gained flesh. In ten days pus had ceased and wound was healing: patient walked on crutches September 3. Left the hospital cured, October 14; traveling to Beaver City, Nebraska.

Henry Deffauld, June 30, 1888. Dr. Treacy. Caseous abscess. Patient complained of pain in his thigh for two years. Had struck it with a rock the day of entry to hospital. Incision made and drainage tube inserted. Temperature 102° to 103°. Wound irrigated daily. Discharged August 20.

Vivian V., aged three years. Dr. Treacy. Empyema, right side. Opening made and drainage tube inserted. Iodide of iron internally. Discharged October 4.

Florence D., aged eighteen, November 9, 1888. Dr. Treacy. Operation for necrosis of the femur. Popliteal space opened; sequestrum three inches long and detached. Opening packed with iodoform gauze and allowed to heal from the bottom. Iodide of iron internally. Peroxide of hydrogen injected in wound daily. Irrigated with bichloride of mercury, 1 in 5,000 to 7,000 daily. Discharged cured, November 28.

John F., September 18, 1888. Dr. Treacy. Com-

E. D. Ludlum.

Date.	Temp.		Pulse.		Date.	Temp.		Pulse.	
	A. M.	P. M.	A. M.	P. M.		A. M.	P. M.	A. M.	P. M.
Oct. 30		104.2		110	Nov. 15	100.8	101.3	90	90
31	102.8	97.	90	100	16	101.4	100.2	115	100
Nov. 1	98.6		87		17	100.	101.4	90	100
2	102.6	101 8	106	90	18	99.6	99.4	90	85
3	102.4	102.8	125	100	19	101.4	101.2	100	100
4	103.2	101.	100	120	20	101.6	100.6	100	90
5	102.4	103.4	90	100	21	99.4	99.6	90	90
6	102.	103.2	90	75	22	99.6	101.4	90	90
7	101.8	100.2	90	85	23	100.1	99.	90	85
8	101.8	99.6	80	80	24	99.7	99.	90	75
9	101.	100.4	80	100	25	98.6	98.6	75	80
10	97.7	103 6	90	110	26	98.9	98.6	80	75
11	101.2	101.6	100	100	27	98.6	98.6	75	86
12	102.5	100.	90	100	28	98.6	98.6	75	80
13	101.	100.	110	95	29	98.6	*		
14	99.	101.6	90	100					

* Discharged.

pound comminuted fracture of inferior maxillary. Used metal splint and bandage; carbolized wash for mouth. Discharged October 6, cured.

E. D. Ludlum, October 30, 1888, Northern Pacific express messenger. Dr. Treacy. Typhoid fever. Subsultus tendinum; characteristic diarrhœa; delirium followed by coma. *Treatment:* Quinine 5 gr. every three hours during the day; 30 gr. on rise of temperature in the evening. Egg-nog three times daily. Alcoholic sponges. Discharged cured, December 5. (See table, p. 76.)

Crampton Linley, typhoid fever. Service of Dr. Treacy. Bloody diarrhœa; subsultus tendinum; no delirium; stupor. Discharged cured, March 12. *Treatment:* Quinine, gr. x, and repeated in one hour when fever was high. Nitro-muriatic acid dil. gtt. x, and quinine, grs. v, every three hours. Dover's powder, gr. v, at night when restless.

Crampton Linley.

Date.	Temp.		Pulse.		Date.	Temp.		Pulse.	
	A. M.	P. M.	A. M.	P. M.		A. M.	P. M.	A. M.	P. M.
Dec. 9		98.		105	Jan. 21	98.3	101.4	85	100
10	102.5	104.	95	90	22	98.6	99.4	85	91
11	106.	104.2	110	95	23	98.	100.	80	90
12	103.6	104.7	100	88	24	98.	99.	80	90
13	105.2	104 4	88	85	25	98.	98.6	80	90
14	104.	104.6	90	80	26	98.	98.6	86	96
15	104.	104.4	90	84	27	98.	99.4	80	90
16	103.4	103.8	80	85	28	98.4	100.	81	100
17	101.5	103.5	80	90	29	99.	101.	80	86
18	102.	103.8	90	80	30	99.	103.	85	100
19	102.3	103.2	80	90	31	99 2	100.4	80	110
20	100.	101.2	80	85	Feb. 1	98.6	99.6	86	100
21	101.	104.	80	87	2	98.8	101.8	90	100
22	102.	102.	80	85	3	99.6	101.9	85	85
23	101.4	102.	95	85	4	98.4	100.9	95	82
24	101.4	103.	90	95	5	98.	99.5	80	95
25	101.4	102.4	85	90	6	98.4	99.4	81	95
26	102.	100.	80	90	7	98.4	100.5	86	95
27	102.	104.5	100	85	8	98 4	98.	86	95
28	100.	102.	85	90	9	98.4	98.6	85	96
29	100.	103.	85	95	10	98.4	99.2	80	90
30	100.	101.9	84	95	11	98.6	104.2	85	105
31	100.	102.4	90	95	12	101.5	103.9	90	100
Jan. 1	98.7	102.	85	100	13	99.6	100.4	80	90
2	100 2	103.7	90	105	14	99.6	102.	80	90
3	102 4	103.4	105	105	15	99.	100.	80	90
4	99.4	103.	90	105	16	99.	100.8	80	90
5	101.	100.	100	90	17	99.4	99.6	80	85
6	100.2	100.	106	100	18	98.	99.	70	90
7	99 7	101.5	86	85	19	98.	98.4	65	85
8	100.6	102.1	80	100	20	98.	98.4	65	85
9	99.8	101.2	80	90	21	98.	98.	70	90
10	99.8	102.6	75	100	22	98.	98.6	70	85
11	100.8	100.8	95	105	23	98.	98 5	70	75
12	100	100.3	100	105	24	98.	98.5	70	76
13	98.6	102.2	80	90	25	98.2	102.6	75	100
14	101.4	102.8	95	100	26	99.	101.4	80	87
15	99.	103.	95	106	27	97.	97.7	65	90
16	98 9	101.	100	105	28	97.2	97.8	65	70
17	98.2	101.4	90	85	Mar. 1	97.	97.5	60	70
18	101.	100.	90	105	2	97.	99.6	60	100
19	99.	100.2	100	105	3	97.	88.	60	75
20	98.	101.4	96	96					

Martin Dill, Mountain Fever. Service of Dr. Barbour.

Date.	Temperature.		Date.	Temperature.	
	A. M.	P. M.		A. M.	P. M.
Aug. 29		104.2	Aug. 13	98.6	103.2
20	102.2	104.8	14	98.4	102.
21	102.2	105.	15	98 2	100.
Sept. 1	102 2	103.	16	98.4	101.
2	101.2	103.8	17	98.2	101.
3	100 2	103.2	18	98.2	99.9
4	100.2	103.2	19	98.2	100.
5	102.	104.4	20	98 2	99 4
6	101.4	104.	21	98.	99.4
7	100 4	103.4	22	98.6	100 6
8	100.	101.2	23	99.	100.6
9	100.	103.4	24	99.	100.2
10	100.	103 2	25	99.2	100.
11	100.2	104.	26	98.	
12	100.2	103.4			

Fred. Holl, Mountain Fever. Service of Dr. Treacy.

Date.	Temperature.		Date.	Temperature.	
	A. M.	P. M.		A. M.	P. M.
Jan. 19		104.	Jan. 22	97.9	99.
20	101.	99.	23	98.	98.4
21	98.4	98.9	24	98.	

Isadore Louge, Mountain Fever. Service of Dr. Dean.

Date.	Temperature.		Date.	Temperature.	
	A. M.	P. M.		A. M.	P. M.
Oct. 15		101.	Oct. 30	99.	100.
16	100.	101.6	31	98.8	100.
17	99.6	102.	Nov. 1	98.6	99.6
18	101.2	103.5	2	98.4	100.
19	101.4	103.	3	98.4	100.
20	102.	103.	4	99.4	101.
21	101.	102.	5	98	99.4
22	101.	101.	6	98.5	100.
23	100 8	101.4	7	98.2	99.
24	99.	99.	8	98.	98.6
25	99	101.6	9	98.	98.6
26	100 3	103.	10	97.6	98.6
27	100.	101.6	11	97.6	98.4
28	99.	101 4	12	98.	98.4
29	99 8	101.8			

Jas. S. Hopkins, Mountain Fever. Service of Dr. Treacy.

Date.	Temperature.		Date.	Temperature.	
	A. M.	P. M.		A. M.	P. M.
Nov. 24		103.	Dec. 11	101.	105.
25	103.	100.	12	101.	105.
26	102.4	102.	13	101.4	103.
27	102.8	102 4	14	100.	100.8
28	101.8	101.6	15	100.	102.
29	102 2	101.	16	100.	102.
30	100.	98.4	17	100.4	99.4
Dec. 1	97.8	102.8	18	98 5	99.6
2	100.6	101.	19	98.5	100.2
3	99.4	103.	20	98.8	99.5
4	101.4	102.4	21	98.	100.
5	100.	102.4	22	98.2	100.
6	101.6	105.	23	98.4	99.7
7	101.	104.	24	98.4	99.8
8	100 2	100.2	25	99.	98.4
9	102.	100.	26	98.	99.1
10	100.4	100.2	27	98.2	98.4

John Linden, Mountain Fever. Service of Dr. Barbour.

Date.	Temperature.		Date.	Temperature.	
	A. M.	P. M.		A. M.	P. M.
June 1	103.	103.6	June 18	103.2	104.7
2	99.	103.4	19	99.	103.
3	97.6	100.2	20	101.	104.3
4	102.5	101.	21	98.6	103.6
5	101.2	103.	22	99.4	102.6
6	102.8	100.	23	101.4	102.
7	101.8	101.8	24	99.4	106.
8	101.4	103.	25	100.2	98.
9	99.6	103.4	26	101.	98.6
10	101.	104.2	27	98.4	98.4
11	100.6	104.1	28	98.4	98.4
12	101.2	103.2	29	98.4	99.2
13	100.4	104.	30	98.8	98.6
14	98.4	100.	July 1	97.2	99.6
15	98.6	100.8	2	98.	99.6
16	99.4	103.	3	98.3	99 6
17	99.4	104.	4	99.4	100.2

James Peters, Mountain Fever. Service of Dr. Pleasants.

Date.	Temperature.		Date.	Temperature.	
	A. M.	P. M.		A. M.	P. M.
Aug. 16	101.4	104.2	Aug. 26	101.6	102.6
17	103.	104 8	27	100.	102.8
18	102.8	103.8	28	100 6	102.8
19	101.4	103.8	29	99.6	102.5
20	103 2	103.6	30	102.6	105.4
21	101.6	102.4	31	101.	104.
22	99.2	101.	Sept. 1	104.5	104.
23	99.	101.4	2	103 4	104.
24	99.2	101.6	3	102.6	104.
25	101.4	103.2	4	102.	Died.

Richard Daly, Mountain Fever. Service of Dr. Sligh.

Date.	Temperature.		Date.	Temperature.	
	A. M.	P. M.		A. M.	P. M.
Aug. 7		103.8	Aug. 19	98.2	98.8
8	102.6	103.6	20	99.2	101.4
8	101.4	101.8	21	100.2	102.5
10	101.8	102.4	22	99.3	102.
11	101.8	103.	23	99.4	100.6
12	101.6	102.2	24	98.6	99.6
13	100.	102.1	25	98.4	98.8
14	100.6	102.8	26	98.4	98.4
15	99 6	101.6	27	98 2	98.4
16	99.4	100.	28	98.	98.2
17	98.5	100.8	29	97.8	98.2*
18	98.4	99.			

*Discharged.

Emily E. Uhlrich, Mountain Fever. Service of Dr Sligh.

Date.	Temperature.		Date.	Temperature.	
	A. M.	P. M.		A. M.	P. M.
Aug. 13		104 4	Aug. 30	104.	104.3
14	101.7	103.4	31	103.	104.4
15	102.8	103.4	Sept. 1	102.	103.4
16	101.8	103.6	2	102.6	104.
17	101.5	103.	3	101.4	103.6
18	101.6	103.4	4	101.4	103.4
19	100.2	101.9	5	101.2	103.
20	99.6	101.8	6	101.6	103.4
21	99.6	101.6	7	101.6	102.6
22	99.	100.	8	101.	102.4
23	99.4	99.8	9	100.8	102.
24	99.4	99.8	10	101.2	102.
25	99.4	100.6	11	101.	101.
26	99.2	99.	12	99.8	100.9
27	99.2	100.	13	98.6	100.
28	100.2	103.3	14	98.8	99.6
29	101.1	105.	15	98.6	99.4

August Berquist, Mountain Fever. Service of Dr. Treacy.

Date.	Temp.			Date.	Temp.	
	A. M.	P. M.			A. M.	P. M.
Sept. 12	101.	103.2	Quinine, gr. x.	Sept. 20	101.	103.
13	99.4	100.	" " v, every 3 hrs.	21	101.8	102.9
14	99 5	103.9	" " v, " " 3 "	22	100.4	101.4
15	102.5	105.3	" " xv.	23	99.6	102.2
16	101.8	103 5	" " xv.	24	99.4	101.4
17	101.	103.	" " xxx.	25	99.3	101.4
18	101.6	103.	" " xxx.	26	98.2	101.4
19	101.4	102.6	" " xv.	27	98.4	100.8
				28	98.6	99.2

ELECTRICITY IN ITS MEDICO-LEGAL RELATIONS[1].

By CLARK BELL, Esq.,
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THE advance in scientific research and discovery, within the last five years, in the application of electricity to the wants and needs of mankind, has been something prodigious.

One can hardly keep pace, with the advancing strides of electrical invention and discovery.

The electric light is now a public necessity, and is in almost universal use, in cities and large towns.

Electricity, as a motive power and force in mechanics and engineering, is coming into a prominence and usefulness, that is beyond the comprehension of those who have not investigated the subject.

Perhaps no form of use, of that energy known as electricity, at the present hour, excites greater public interest, than the problem of electric lighting and its relation to the public good, and especially to the public safety.

The practical use of this agent, for lighting as well as for the telegraph and telephone, must be by wires through which the current is conducted.

The electric telegraph, which created the pioneer road for the passage of the current, was along wires suspended in mid-air.

That path and lead was followed, usually, as the advance of discovery; and the applications of practical inventions brought the agent into new and untried fields, but usually along this pathway.

In America and Great Britain, countries that occupy the lead in this development, the overhead wires came almost naturally into universal use, and without regard to the power or potency of the current employed.

The advancing wave of this practical use brought into requisition, greater force and greater potency; and the experiments, developing various kinds of currents, led to new problems and complications, which found their way to the public eye and ear soonest, in the systems of electric lighting as applied and used in the great cities.

Municipal authorities start with the legal proposition, that the power of regulating the use of any agent, as steam, electricity, or any other energy used, so far as it relates to the public safety, is, and of needs must be, the subject of municipal regulation, or legislative enactment.

The earlier experiments, and indeed the practical uses of this wonderful agent, while—known to be dangerous, were singularly and almost marvelously free from disaster in this country, and, so far as we have been able to learn, throughout the civilized nations of the world that employed it.

The accidents, fatal or otherwise, attending or resulting from its use, were less than from any other energy used by mankind in the arts and sciences or as a force, not merely in actual number, but in ratio to the total number of those directly engaged in the use.

The number of deaths or accidents resulting from fire, steam, gas, or other forces, exceeded those from this agent so greatly, that these latter became absolutely insignificant in fact, both in the popular estimation of America as well as of Great Britain.

A different impression obtained in France, and, indeed in all Continental countries, save perhaps Italy.

In Paris and Berlin, the authorities compelled all wires to be placed under ground, by the electric lighting companies.

This was not due to considerations of public safety, so far as danger of life was concerned, in either city. The German regulations do not seem to contemplate personal danger, as low one hundred volts potential are about the powers used, and dangers of fire are regarded as more likely, and precautions of insulation as more necessary, where the continuous current is being generally used.

This is also true of Belgium, but only partially true of Italy, where the low potential powers are generally in use for lighting, but an extraordinary exception is contemplated for the use of enormous power, at the Tivoli-falls outside Rome.

The plan is said by Sir William Thompson to be, to use two thousand five hundred horse-power at the Falls; this to be transmitted by alternating currents, at five thousand volts, by overhead wires, to the Imperial City, a distance of thirty-seven kilometers; then to reduce it by a transformer to one thousand volt currents; and then distribute it underground, by numerous transformers, in different parts of the city and to consumers, in one hundred volt currents, for general public use.

The tendency of legislation has been to put the wires underground, on the theory that the question of danger from high pressure overhead wires might be thus either avoided or reduced to a minimum.

The British Electric Lighting Act, of 1888, seems to have been based upon that presumption.

The public sentiment in New York, at the present moment, is strongly in the same direction; and it is intensified by the darkness which came upon that city, since the action of the municipal authorities, in demolishing the overhead wires, under the guidance of the Inspectors of the Board of Electrical Control of the city, to the extent, as we are advised, of at least one-fourth of all the mileage of the electric light wires of the city, and with the result of suspending

[1] Read before the Medico-Legal Society of New York, and before the American Medical Association at Nashville, Tenn. (From advanced sheets of *Medico-Legal Journal.*)

the service of at least nine-tenths of all the arc lights of the metropolis.

This was a great public calamity for New York, and must have been attended with enormous loss to the corporations who had supplied the light; it was certainly an enormous inconvenience to the general public.

The agitation of the public mind is so great, that we think it wise now to look at the question with conservative regard for the truth and with more of calm reflection, and without that excitement that resulted in such a wholesale destruction of the plant of the various companies that supplied the city.

Let us inquire as to what currents are now used, and look at the relations of each to the public safety, and examine what precautions are necessary and how they can best be taken.

Mr. Thomas A. Edison, a very high electric authority, has classified these currents as follows:

1. The low tension continuous currents, with a pressure not exceeding two hundred volts, used for incandescent lighting.
2. The high tension continuous current, with a pressure of two thousand volts or over.
3. The high-tension semi-continuous or pulsatory current, with a pressure of two thousand volts and over.
4. The alternating current, with a pressure of from one thousand to three thousand volts and over.

(*Electric Engineer*, January, 1890, page 16.)

Sir William Thompson is an authority for the statement:

"That one hundred volts in the house is perfectly safe to the user, whether the current be alternating or continuous, as is proved by large and varied experiences in England."

(*North-American Review*, February, 1890, page 191.)

This statement is quoted approvingly by George Westinghouse, Jr., a man of large and varied experience and practical knowledge, who has recently taken high rank as a writer upon these questions: "What is true of England, of Belgium, of Germany, and the Continental cities, I think we may say is quite true of the City of New York."

Perhaps the clearest definition of the "alternating current," or rather the characteristics of that current, and the "continuous current," as contradistinguished from each other, is that given by Mr. Geo. Westinghouse, Jr., in the March number of the *North American Review*, in his able and forcible reply to Sir Wm. Thompson's article on "Electric Lighting and Public Safety."

Mr. Westinghouse says:

"It is now quite generally understood that, in the generation of electricity for electric lighting and similar purposes, a coil of wire with united ends is caused to approach a magnet, by which operation a pulsation of electricity flowing in a definite direction is produced in the wire; and, when the coil is withdrawn from the magnet, another pulsation is produced, but this time in the opposite direction. The repetition of this operation produces a succession of pulsations, alternating in direction, which is termed an alternating current; and, in what is known as the alternating system of distribution, these natural currents are used in the distributing mains directly as they are produced by the generator.

"The production of what is known as a continuous current involves the changing of every alternate pulsation by a complicated mechanical contrivance, called the commutator, which, through two sets of brushes—one set taking all the positive currents, and the other all of the negative—causes the successive pulsations all to flow in the same direction, constituting what is technically termed a direct current, and usually spoken of as a continuous current. This current is similar in character to that generated by the well-known chemical batteries."—*North American Review*, March, 1890, p. 323.

One characteristic of an "alternating current" is, as described by Mr. Westinghouse:

"That an alternating current, when made to traverse a coil of wire, is capable of inducing or creating, in an independent coil of wire in the neighborhood of the first coil, a similar alternating current of equal energy, but capable of having its pressure or its quantity modified to any required extent—a result which the continuous current is utterly incapable of producing."

It is claimed also by Mr. Westinghouse that absolute safety is secured to the consumer, both as to personal injury and as against fire or other accidents, by using, even with very high voltage in the street mains, well secured and protected, wholly disconnected with the house wire, supplied by converters or transformers, located in or near each building, composed of two separately wound and insulated coils, one of thin wire connected with the street mains, and the other of thick wire connected to the wires of the building. The practical working of this arrangement is that the voltage, which may be two thousand in the thin wire, induces in the neighboring thick wire an equivalent amount of electrical energy, but so modified as to be only fifty volts in the thick coil, the volume of the electricity being as many times increased as the voltage is diminished.

It would seem that suitable legislation or municipal regulations could be made, that would prohibit any connection between the consumer and the high pressure mains, that would reduce the danger of personal injury to the minimum, so as to be substantially safe.

Electrical engineers and experts should be called to pass upon the questions:

1. What precautions could be taken to reduce the danger of injury to persons from the use of high pressure main wires, whether submerged in great cities or suspended in the air outside city limits?
2. What precautions should be adopted in the distribution of the light by transformers, so as to make the consumers absolutely safe as to personal injury?
3. What quantity can be carried over each class of conductors, and what regulations and limitations as to quantity, should be placed on each class and kind of conductors?

The use of the alternating currents of high tension, by means of transformers, which convert or change the current into low tension currents, and the absolute disconnection of the two systems of conductors, are not only generally recognized by electricians, but are in practical working operation in the chief cities of the world.

The danger to public safety from the use of either current may be then stated to be, in addition to personal safety, that of causing or occasioning fires and of explosions, and it seems quite clear, from the best authority, that placing the main high pressure wires underground does not guard against either of these dangers.

Mr. Edison has cited an incident that occurred near the corner of Wall and William streets, New York, by the crossing of wires at a pressure of only one hundred and ten volts, which caused energy "sufficient to melt iron tubing and reduced the paving stones to a molten mass;" and it is apparent that burying the wires, without important modifications of the present regulations, would not be a certain safeguard against danger to the public safety in this direction.

Mr. Westinghouse correctly states the source of danger as to fires when he says:

"Electrical fires are the results which are due directly to the quantity or volume, and not the tension or pressure of the current.

"The welding together of massive bars of iron is quickly and perfectly accomplished with an electrical pressure of only one volt, although the volume of current is, of course, enormous."

Again: while no injury to person would result from an electrical pressure of one hundred volts or less, a fire can be started between two wires with a hundred volts of direct current, by the moisture from water, which a pressure of fifty volts of the alternating current could not do.[1]

Assuming the correctness of this proposition, this fact would teach us how to avoid fires, by disconnecting the building from the high pressure mains, and substituting transformers for supply to fifty volts, thus making fires from this source practically impossible.

It would be needless and perhaps unwise, in the present agitated state of public opinion, intensified by the few fatal cases (but in several very terrible to contemplate, a few of which greatly inflamed the public sense) to attempt to change popular dislike or distrust of the overhead wires: but it is nevertheless quite true, that, unless provisions are made and regulations modified, to suit the public exigency, the total submerging of all the wires under the present regulations may result in New York in greater public harm, than any yet sustained, as the ratio of loss of life was so small in its ratio to death from other causes.

The characteristics of the different currents furnish an interesting study when considered as to their respective potencies, in regard to personal safety, when passed through the human body.

The most important recent contribution to this branch of the subject, is that presented by Dr. Arthur Harris and Mr. H. Newman Lawrence, in a recent paper submitted to the London Institute of Electrical Engineers, upon the question of the relative potencies of the alternating and continuous currents, for mischief to human life.

The general summing up of their admirable group of experiments indicate, that the resistance of the human body was seven times greater with the continuous than the alternating current.[2]

The testimony given by electrical experts, before the Legislative Committee of Investigation, is full of interest upon this branch of inquiry.

It may be regarded as an indisputable proposition, that where it is desired to produce fatal results as in the case of executions under the law, the alternating current is by far the most reliable and certain in its fatal effects.

Mr. Edison, that high electrical authority, in answer to the writer's inquiry, as to whether there was room for reasonable doubt, as to the certainty of death, by the instrument which had been selected by the public authorities, to carry into effect the sentence of the tribunals of those condemned to death, in the State of New York, stated that "death would be instantaneous and certain beyond any peradventure—with the present instrument."

The question of electrical executions as a penalty or punishment for crime, is outside the previous considerations.

If electrical scientific knowledge is desired, to consider what method is the most certainly fatal to human life, by a direct application for that purpose, we should hesitate to believe that any competent expert would fail if he made a serious effort to accomplish that result by the alternating current.

The application to legislative interference, naturally waited until the Court of Appeals, passed upon the constitutionality of the law itself.

It is said that revolutions never go backward, and the signs of the times are not favorable to going back again to the hangman and the scaffold.

The relative merits of this method of executing criminals, will be considered by our people, and its merits and demerits canvassed.

I should sooner look (if any change came in the present law) to the abolition of the death penalty in this State, rather than to a restoration of the scaffold and the rope. Indeed, this is the form which opposition to existing laws took, before the Legislature, in the bill to abolish the death penalty for crime. And that side of the discussion was presented with great force, and the measure passed the lower house of the New York Legislature. There has been a strong minority in this State opposed to the death penalty for crime for some years. This minority will now be reinforced, by those who have opposed the new law, and the issue came before our people in the Assembly bill. The leading judges and jurists opposed the abolition of the death penalty, and, in the debate before the Medico-Legal Society on May 14, no speaker favored the abolition, though there are members of the body who do.

The medico-legal aspects of this wonderful energy are at the present moment attracting the attention of courts, jurists, and legislatures; and this is my apology for bringing these considerations to public notice.

[1] Mr. Westinghouse, *North Am. Rev.*, March, 1890, p. 327.
[2] *London Lancet*, May 3, 1890.

DRIFT OF AMERICAN MEDICAL JOURNALISM.[1]

By T. D. CROTHERS, M.D.,
Editor, Journal of Inebriety, Hartford, Conn.

ANY general comparison will show that medical journalism in this country is in advance of that of Europe. Simply because it represents more fully the current thought and medical progress of the times. The best European journals are often narrow, critical, and morbidly conservative. In many of them there is a tone of completeness, and assumption that the science of medicine is understood and settled.

New truths are innovations, unwelcomed unless supported by some old university prestige.

The daring explorer who brings new views from the frontier of science alone is met with icy suspicion and reserve.

American journals are sometimes narrow, but never critical or morbidly conservative. They are often recklessly generous and broad, and intensely personal; but, with very few exceptions, there is manifest a spirit of expectancy, and welcome to all new truths, from any source.

European journals rarely print the latest facts of scientific study. Such facts must appear in a book or pamphlet, then the journal will pass judgment. The most advanced work of medical scientists must be published and go on the market, and create an interest in the subject and demand for itself—then the journal makes a record of it In this country the medical pioneer is sure of a hearing in the journals from the beginning. No matter how revolutionary his conclusions may be, he will always have an organ in the medical press, and an audience to endorse or condemn his work. The medical leader in Europe must reach his audience through a volume, and his work is seldom fully realized in his life-time. Often such leaders become narrow and dogmatic, and intensely combative.

In this country the medical man who believes he

[1] Read before American Medical Editors' Associations, at Nashville, June 20, 1890.

has discovered some new facts obtains a large, critical audience through the medical journals at once, and his work is consigned to oblivion or put away for further consideration. After it has been the rounds of the press, and become the common property of the profession, he may gather it up into a book form, which generally dies with the first edition.

But long before this it has served its purpose, and has been a silent power, both by suggestion and stimulating to clearer and more accurate study.

In this respect alone the American medical press excels, by giving wide and rapid publicity to every new advance in medicine. In Europe the latest facts of science are found in books and pamphlets. In this country they are scattered through the journals. If medicine was a fixed science, based on fixed facts, the former medium would be superior.

But as it is not, the latter is the true evolutionary method of growth and progression.

The most general history of medical journalism points to a psychical line of march that has escaped attention.

The phenomena of the physical in the realm of medicine has absorbed the entire attention, so far, and all study and effort has been to classify and reduce them to laws; while the realm of the psychical has been ignored or left to quacks. In medical journals seen from a psychological side, there is clearly an ebb and flow of scientific thought that has a certain tendency and drift which may be seen in part.

The future of medical science is not a closed book. Everything in the present is largely a prognostication for the future.

Medical science of to-day, and its representation in the journals, turns largely on an accurate knowledge of the past and present.

Every journal in some degree exhibits forecasts and intimations of the coming medical science, of its coming teachers, and its coming journals.

The confusion and hurry of the present obscures the fact that with all the development and progress of to-day we have scarcely come to the threshold of the reality of the science of healing. The real work in medicine is away before us, like misty outlines of far-away mountains.

All the energy and enthusiasm of the past and present are preliminary, merely clearing away the ground and preparing for a comprehension and utilization of the majestic laws of evolution and devolution. The real science of medicine is away in the misty dawn of the future. But already there are outlines of great realms of surgical possibilities—of possibilities in preventive medicine; of chemical possibilities in foods and nutriments; of physiological and psychological forces, the use of which will revolutionize all our past theories and practice.

The boasted achievements of to-day are literally a series of failures to comprehend the whole truth; but failures that rouse renewed energy and study, and finally marks the journey that leads to larger, clearer views.

The history of medicine, both in the past and present, is the evolution of mind and thought, the hurried march from the lower to the higher. Thus, every year the range of the senses and the reason widens and the incomplete grows less, and the unknowable narrows.

This is the shifting panorama that medical journals are trying to present. The procession of medical journals is coming and going, and each one announces itself with that trite expression as meeting a "long-felt want," which is literally an unconscious reason and apology of a psychical need and demand that, like Banquo's ghost, "will not down." Each new journal, no matter how sickly its infancy and short its life, is the unconscious expression of this need; it is the pushing forward toward an ideal; toward a type of larger, better journals in the future.

The multiplication of journals of all degrees and qualities is not a matter of whim or accident, but is in obedience to pyschical laws and forces that are largely unknown.

The significance and meaning of this almost precocious birth, growth, and death of medical journals is dimly apparent in many ways.

Thus, each new journal brings with it new writers, and new interest into journalism and its work; new conceptions of facts, and their relation to truth; new groups of readers and authors, and new personal interests; new aspirations, to shape and mould the literature. Each new journal is an educational force in the circle in which it lives—it starts men thinking; it rouses them to put their thoughts on paper; it makes them more careful readers, and stimulates comparison.

There is a certain drift and tendency in this increasing tide of journalistic literature toward a clearer and more accurate knowledge of diseases, and their prevention and remedies.

The more journals published the more rapidly the elimination of the weak will go on, and also the growth of the survivals.

Every journal builds up a certain number of readers, who very quickly outgrow the influence of the journal—unless it keeps pace with the times—and who demand a better journal, and assist in killing the old. The field of journalism is filled with instances of hearty support and active laudation in the early life of journals, soon followed by neglect, condemnation, and death. The readers have outgrown the journal. The long-felt want is simply increased by such journals. A financial support may sustain a weak journal for a time, but even this will fail. A journal depending upon brain capacity and culture will live for a time; but brain capacity and culture must be replaced or the journal dies Consolidation and concentration of journals may lengthen out the life for a time, but the remorseless law of the survival of the fittest crushes out and levels up all thing at last. While the *drift* of American journalism is upward, toward higher types and clearer, more accurate views of medical science, it is evident that all advances of science in the future will come before the profession first in the journals.

Medical journals are clearly destined to be the sole historians of all scientific progress. Already, in this country, they are far on the road in that direction. In proportion as they fail to realize this they fall into graves of their own digging. There is also a marked increase of the scientific capacity and sense of facts and the laws which govern them in American journals. Observe this in the papers and lectures of an increasing number every year. Formerly wordy arguments, statements, and theories, loaded down with quotations equally uncertain, comprised the bulk of the papers. Now the best journalistic work is the presentation of facts and the most reasonable conclusions which they indicate. The reader follows such a presentation with keen interest, because it appeals to his reason. On the other hand, mere statements and theories appeal entirely to his faith and credulity.

The journal must rouse and stimulate the reader; not soothe his convictions and lull him into belief of the finality of supposed truth.

The evolutionary progress of all branches of science is revolutionary. All truth is but present appearances, which may change materially to-morrow.

True journals can have no fixed theories or conceptions that are not open to question and doubt, and to the consideration of any evidence that may be offered.

While the American journal is often lamentably weak and sickly, and dies early, or is an imitator of the secular press—without scientific capacity to realize facts and the laws which govern them—there is a vivacity and power of adapting itself to every new advance, defending or condemning it with eager earnestness, that places it far beyond all foreign journals.

The American medical press leads all the world to-day—not in journalistic culture or solid, logical comments and essays on medicine, but in progressive appreciation of the incessant changes and forward movement of science.

The evolutionary march of medical literature and journals is nowhere more clearly apparent than here.

The most revolutionary theories and startling views have defenders in journals. While both theories and journals die, they leave an impress that contributes, in some measure, to the growth of science. Thus medical journalism is on the road, passing through the great upheaval periods, epochs of dogmatic fog speculation, periods of egotistical conservatism and mutual admiration, and hero worship of foreign authors, followed by fiery personalities, and long levels of subsidence. But through it all there is a grand advance, a movement, an approach toward a clearer knowledge of the laws which govern the growth and decay of all matter. As in nature, it is the same struggle, and the survival of the fittest, and even these are soon replaced by others more fit.

The drift of American journalism is the drift of all science—upward, outward, and forward. The constant advance from the old to the new, from the best and clearest facts of yesterday and to-day on the larger truths of to-morrow.

The more fully we comprehend this fact the better our journals will be. Failure to realize and act upon this is inevitable failure, irrespective of all other conditions and surroundings.

The literature and practice of medicine, as well as the physician, are more and more largely influenced by journalism. The power of the treatise and book are growing less and journalism is widening, until it now includes special journals covering every branch of medicine.

Our journals and our associations are fast becoming great central forces, that will either lead the march of medical science or be crushed out by it. Popular favor or financial support are powerless to sustain a journal that is out of the drift of scientific advance. Every year the medical profession is growing, and every year a better class of journals is demanded. The question comes to us from all sides: Are our journals growing to meet this demand? Do we realize that medicine, as a science, is passing through a great drift period? Do we realize that medical literature is more and more intimately associated with journalism? That journalism is unconsciously leading all medical literature? That every advance of medical science depends upon journalism in its highest development? The more accurate and better the journal the better the scientific work.

Journalism demands our best efforts, not our leisure moments after the professional labors of the day. Journalism demands a progressive growth from year to year, not only in new facts and methods of presenting them, but in the individuality of the journal.

Finally, medical journalism is more than making abstracts, and reading proof, and making sprightly comments. It is cotemporaneous history of the rapid dawn of a new age of healing and preventive medicine.

American journalism, as a whole, is awake and alive, but still far back on the road. But to-day there is apparent a tremendous stir and movement, a consciousness of the great drift of events—of the drift of science, of the drift of journalism. This is the evolutionary current into which we must turn our journalistic barques if we ever sight the true port of the coming ages.

Society Notes.

KENTUCKY STATE MEDICAL SOCIETY.

Thirty-first Annual Session, held at Henderson, Ky., May 14, 15, and 16, 1890.

President Dr. J. A. Ouchterlony, of Louisville, in the chair, and Secretary Dr. Steele Bailey, of Stanford, at the desk.

THE Hon. John L. Dorsey delivered the address of welcome. Dr. A. Dixon read a report on the Progress in Surgery. The President read his address on the Early Practice of Medicine in Kentucky. Dr. G. Frank Lydston, of Chicago, made an address —Materialism *vs.* Sentiment in the Study of the Causes and Correction of Crime.

The following officers were elected: President, Dr. G. W. Beeler, of Clinton; Senior Vice-President, Dr. J. M. Poyntz, Madison; Junior Vice-President, Dr. A. Morgan Vance, Louisville; Permanent Secretary, Dr. Steele Bailey, Stanford; Assistant Secretary, Dr. J. Y. Oldham, Lexington; Treasurer, Dr. J. B. Kennard, Lancaster; Librarian, Dr. T. B. Greenley, West Point, Ky. The next place of meeting is Lexington, and Dr. David Barrows, of that city, Chairman of the Committee of Arrangements. Delegates were chosen to the National and the International Conventions.

At the banquet at the Barrett House toasts were responded to as follows: Kentucky State Medical Society, Dr. John A. Ouchterlony, Louisville; State Board of Health in Prevention of Disease, Dr. Pinkney Thompson, Pembroke; Art in Medicine, Dr. J. M. Matthews, Louisville; Philanthropy in Medicine, Dr. G. Frank Lydston, Chicago; The Ladies, Dr. L. S. McMurtry, Louisville; Medical Press, Dr. Dudley S. Reynolds, Louisville.

A ball was given at the Armory in honor of the doctors, and was very enjoyable. A profusion of Kentucky feminine loveliness added its charms to the occasion.

The address of the President of the Kentucky State Medical Society was made by Dr. J. A. Ouchterlony, of Louisville. He took for his subject the

PIONEER MEDICAL MEN AND TIMES IN KENTUCKY.

The noble adventurer who first (in 1747) plunged bravely into that pathless wilderness known as "the dark and bloody ground" was a medical man—Dr. Thomas Walker, who married a cousin of George Washington. The first practicing physician in Kentucky was Dr. George Hartt, at Harrodsburgh. The first surgical operation was done by Col. James Smith,

and was done on himself in the wilderness and with no one but a mulatto boy with him. Col. Smith was not a medical man. Mrs. Francis Coomes, the wife of Wm. Coomes, was the first lady physician. She was physician, surgeon, and obstetrician, and renowned in all. She was, according to tradition, the first to make bread or salt in the State. Among her posterity is a member of this society—Dr. M. F. Coomes, of Louisville. Dr. H. McMurtrie wrote (in 1819) the first history of Louisville, and discussed geological and philanthropic matters. He also has a descendant in the person of Dr. L. S. McMurtry, an ex-president of this society. The first medical book was published by Dr. Thomas W. Rubleland in 1810. The first medical society in the State was established in Louisville in 1819. A doctor's bill, dating from 1780, shows that Dr. Hartt charged Mr. Clews $240 for eight doses of calomel, and $240 for four blistering plasters. Among the early operations are two of excision of the pancreas in 1816. Biographical sketches were given of Dr. Frederick Ridgley, Dr. John Milton Harney, Dr. Walter Brashear, and Dr. Theobald.

Dr. Arch. Dixon, of Henderson, read a report on the Progress in Surgery. He made a comparison of the surgery of past years with that of to-day, and laid special emphasis on the use of antisepsis in the treatment of wounds. Laparotomy, intestinal, brain surgery, and the radical cure of hernia were carefully discussed.

GUNSHOT INJURY OF THE SPINE, WITH PARALYSIS; DEATH AFTER FOUR YEARS

was the subject by Dr. M. E. Alderson, of Ressellville. He presented the specimen showing the ball projecting into the spinal canal from the vertebræ where it was imbedded.

TWO CASES OF ECTOPIC GESTATION CURED BY ABDOMINAL SECTION

was the subject of a report by Dr. A. C. Bernays, of St. Louis. The first case reported was the first case of early operation for ectopic gestation successfully done in the State of Missouri. The examination of specimen showed an exquisite hæmato-salpinx due to a tubal pregnancy, the blood having escaped from the villi of the chorion at the point where the placenta was developing. The tube is distended so that it is two and a half inches in its largest diameter, and three and a half inches long. The surface of the tube is covered by shread-like adhesions, although in some places the peritoneal covering is seen in a normal condition. The muscular coat of the tube is much hypertrophied, averaging an eighth of an inch in thickness. The embryo was not found, but traces of it were seen in the shape of translucent gelatinous tissue, lying within the clot, which filled the tube. The second case was found in syncope after a ruptured ectopic pregnancy. This is a case where the patient's life was undoubtedly saved by prompt surgical interference. The pregnancy must have been between seven and nine weeks' duration. In many respects the case was an instructive one, and the doctor thinks it the first case of ruptured interstitial gestation which was saved by abdominal section.

BERKS COUNTY MEDICAL SOCIETY.

AT a stated meeting of the Medical Society of the County of Berks, held July 8, 1890, a report of the delegates to the State Medical Association, at Pittsburgh, was read, and received; also it was announced that the State Medical Association proposed meeting in Reading, June 7, 1891.

A Financial Committee was appointed, and the members present paid their first installment of money subscribed for the purpose of entertaining the society here next year.

Reading can now boast of having one of the finest railways or mountain roads in the State. Another will soon be in running order; the first being partly a gravity, the second an electric road. There is even now an electric road, leading several miles into the country. Steamboats carry passengers to several picnic grounds. We find here some of the finest views to be found anywhere in this or in any other State, bringing into view villages, towns, mountains, for twenty or more miles; besides, our large manufactories.

Socially, we think, there will be a treat in store for the society. What it will be, and how conducted, remains to be seen; we can only say, the County Society will make a strong effort to entertain the State Medical Association royally.

Reading has not had the pleasure of entertaining the State Medical Society since 1849, and, strange as it may seem, there is a coincidence in that the chairman of the State Society for 1891 should be chosen again from Lancaster county; this time, Dr. Craig, of Columbia. In 1849, Dr. Samuel Humes, of Lancaster, was president. Of the delegates of 1849 but three remain, Dr. Hiram Corson, Dr. J. Augustus Ehler, and Dr. J. H. Seltzer, now a lawyer of Philadelphia. Of the other members present at that session, Dr. Alfred Stille and Dr. Meredith Clymer are the only doctors that remain, or are known to have been present at that meeting. Possibly, some one can give us more information on that subject. That was the second meeting of the State Society of Pennsylvania.

F. W. FRANKHAUSER, M.D.

230 South Sixth street, Reading.

The Polyclinic.

PHILADELPHIA HOSPITAL.[1]

SERVICE OF DR J. B. WALKER.

SCURVY.

THE first patient I want to bring before you, came into the hospital four days ago, and as you see him to-day he is very much improved. He is pale, anæmic and sallow; his conjunctiva is yellow, and the inside of his lips is pale. His gums are swollen all along the borders of the teeth, and present a red line with some points of ulceration above and below. The upper gums show one hemorrhagic spot, which bleeds freely. His breath is very offensive and the gums are covered with fungus and hang over the crowns of the teeth, so that they are almost on a level with them. This is not so marked as it was yesterday, when I saw him for the first time. The condition is one of anæmia.

On exposing his limbs, we find that they are covered with little spots and larger areas like bruises. These spots are small petechiæ and resemble the eruption that is present in typhus fever. These petechiæ are small ecchymoses with absorption of the liquid part of the blood, while the coloring matter remains. Be-

[1] Reported by William B. Stewart, M.D.

side these petechial spots there are prominences along the front of the tibia of the left leg, and in the right the whole calf, to the popliteal space, is smooth, hard, rigid, and feels like a piece of wood with a cloth wrapped around it. You see a large node on the front of the left leg, but on the right not so much in the front as in the calf. The entire limb is swollen and puffy.

The feet are not swollen, and this shows us that the trouble is due to some local effusion and not obstruction of the vein. Taken with the anæmia, swollen and bleeding gums, the case is a typical one. The nodes on the front of the tibia are due to a subperiosteal effusion, while the enlarged calf of the other leg is due to an effusion into the inter-muscular septa. This is a typical case of scurvy.

Scurvy is a disease that is seldom met with outside of a large hospital. This patient is a German and works hard at his trade—a brickmaker. He has always been a healthy man. His diet was bread, milk, soup, and coffee, and *no* vegetables. Has no headache or vomiting ; pulse is regular ; does not have an alcoholic or specific history.

Here, then, is a patient who has been confined to a limited diet, without much variation, and no vegetables. A limited dietary, not varied, will induce scurvy under rare hygienic surroundings. In cases where a long voyage at sea is to be taken, to avoid this scourge of scurvy, a free supply of lemon and lime juice is given to the sailors daily. The absence of potatoes is an especial feature in scurvy. During the potato-famine in Ireland, a great many people died of scurvy, who would have lived if they had had a few vegetables.

An examination of the blood reveals a deficiency of coloring matter and red blood-cells. Dr. F. P. Henry reported two cases of scurvy, one year ago, in one of which the number of red blood-cells was diminished fifty-five per cent., and the hæmaglobin was reduced thirty per cent. Hence you see that the oxygenating power of the blood was grealy reduced. In an examination of the blood in the case before us, we find a reduction of the cells to thirty-nine per cent. of the normal, and in place of five million there are about one million cells. There is no excess of white cells, but rather a diminution. Henry found the white cells diminished in one of his cases. It is not a case of leucocythæmia, but a case where the corpuscular elements are reduced. The red are reduced in number and value, and this indicates a marked anæmia, which is verified by the marked pallor and sallowness of the face. There is another feature, and that is the increased fibrin forming material in the blood, which has been reported.

A prominent feature, in addition to the anæmia, is the hemorrhagic tendency. In other forms of anæmia you have this hemorrhagic tendency, but its general character distinguishes it from simple purpura.

Simple purpura presents a similar appearance to that in this man's leg, but the spots are larger as a rule, and there is not the general hemorrhagic tendency and condition of the gums. It is strange that this condition has confined itself to the gums surrounding the teeth, for if the tooth is lost you will find that the fungus is not on this part. It confines itself to the borders of the teeth, while the gums away from the line of the teeth are perfectly normal. Pressure on the border of the gums causes an escape of purulent fluid, like that expressed from abscess cavities. The gums are separated from the teeth. The condition of the breath is one that you find in many cases of anæmia, as also the alteration in the size, shape and value of the red cells of the blood, as is the case in pernicious anæmia.

Although scurvy is a pernicious anæmia in one sense, yet it is amenable to treatment in most cases. Where may these hemorrhages come from? They may come from the eyes, nose, stomach, kidneys, bowels, bladder, or may have a hemorrhagic pleurisy, or may take place in any of the serous membranes. Most, if not all cases of hemorrhagic pleurisy, should be classed as scurvy. In this case, the digestion is poor, and the bowels are constipated. When there are ulcers in the bowel, we may have dysentery and hemorrhage from the bowels. The ulcer will be long in healing, and will resemble the true, deep ulcers of dysentery. This man has none of these symptoms. The diagnosis of scurvy rests on the petechial eruption on the lower extremeties ; no fever and swelling of the gums, associated with anæmia, and there is no other disease for which it can be mistaken.

As a rule, in these cases, the temperature is below 99.4° F. The prognosis is always favorable, except in severe hemorrhage, or serous hemorrhages, which may be so great that the patient cannot rally.

Since the cause of scurvy is due to improper diet, the treatment is dietetic. We must build up the blood, and the idea is to give substances that will supply this want. Potatoes represent a prominent feature in diet, in addition, the administration of lemon and lime juice, with mineral acids. Exclude from the diet all forms of salt meats. Give fresh, succulent food, and fresh meat, and vary the diet as much as possible. Administer the lime and lemon juice continuously for the twenty-four hours, day after day—this constitutes the main line of treatment. Following this treatment, some form of iron is indicated. Blaud's ferruginous pills are preferable, in this case, to the other forms of iron. Some prefer the tr. ferri chloridi, on account of its acidity and styptic qualities, and, as a general rule, I think it is preferable. The value of this pill of carbonate of potassium and sulphate of iron, is that it is readily assimilated, and builds up the red cells. I think, also, that where there is marked hemorrhage, aromatic sulphuric acid is one of the most serviceable preparations, and I have seen cases of subcutaneous ecchymoses and inter muscular infiltration, disappear like magic under this treatment. Sometimes ulcers form on the legs, and exist for a long time, and are difficult to heal. Abscesses, with sanious pus, may form and discharge. In many of these cases an anæmic bruit is heard over the base of the heart, due to a temporary dilatation of the left ventricle, and any exertion in the upright position would frequently cause syncope.

[NOTE.—One week later this man was shown to the class very much improved. Treatment was continued.]

Improvement continued and patient made a good recovery.

TYPHOID COMPLICATED BY RHEUMATISM.

This patient is a driver, and has a good family history, and never was sick in his life before this time. He came to the hospital nineteen days ago, complaining of a pain in his side, due to a sprain from carrying a stove upstairs. Two days before he came in he felt weak and could not lift his arm. When he came in none of his joints were swollen, but he was weak ; had a swollen and tender abdomen, and a heavy pain and slightly delirious. On the eve of the second day there was an attack of epistaxis, bowels were distended, and the tongue approached the typhoid condition, with red tip and edges. There was pain in the

legs and arms on the third day after admission, and that evening there was marked swelling of the knee and right wrist, and a soft systolic bruit over the mitral area; epistaxis and tender abdomen.

The left arm and shoulder became involved. His morning temperature was 101.8° F., and his evening temperature 103.8°. Tenderness in the right iliac fossa. The temperature runs high in the evening and lower in the morning, and kept up all the time until the fourth day of admission, when it fell to 100°. On the nineteenth day the temperature reached the normal. By taking the temperature at the same hour morning and evening, it runs a very regular course; but by taking it every two hours in typhoid fever you will be surprised how irregular it is. It may vary two or three degrees in two hours without the use of antipyretics. Dr. Wilson had a record of a case of typhoid fever that ran below normal every day, owing to the fact that he did not take the temperature at a certain set hour each morning and evening.

I say, therefore, to look at this man's temperature chart, with the history just given, I think one is justified, in spite of the other symptoms that have arisen, in saying that typhoid fever had existed.

Rheumatism is a disease of slight fever, and is synonymous with rheumatic fever. Granted that these joints are involved, there would be a decided rise in the temperature, and with only one or two joints involved the temperature would hardly be affected. This man came into the house with a higher temperature than at any time since, and at that time there was no joint involvement. I think this shows that there was something else besides rheumatic poison at work in this man's system. True, this man had undergone extreme muscular exertion, and was in good condition for taking a chill and bringing on an attack of rheumatism, but, before the rheumatic poison had time to stir up any inflammation, he had a temperature one degree higher than at any time since. He had a high fever that has been associated with extreme muscular exertion; or retention of certain poisons in the system; or else he had typhoid fever.

There is no question in my mind that typhoid fever runs as variable a course as scarlet fever, and I think the German method of arriving at a diagnosis by exclusion is the best for us to pursue. I have no doubt but that this man had an attack of typhoid fever, which was complicated by an attack of rheumatism. His pulse varied from 90 to 120, rising with the fever, but mostly below 100 beats per minute. It is remarkable how slowly the pulse weakens in typhoid, and there are two points in the pulse beats that assist us in our diagnosis: First, a dicrotism from the early loss of vasomotor tone, due to the presence of typhoid poison in the blood, and second, the slowness of the pulse in relation to the fever. In typhus, pneumonia, and scarlet fever, see how very high the pulse runs, so that I can say typhoid fever, in this case, almost from the pulse alone. In typhoid, we look on a pulse of 120 as a grave point, and Stokes said this was an indication to stimulate. The presence of constipation is common, for many cases of typhoid run their course without movements from the bowels. Rheumatism rarely complicates typhoid, as it has done in this case.

The yellowish-white fur on the tongue, with the granular fungiform papillæ, can be seen, and the tongue looks like typhoid, but the same condition may be caused by sore throat. Rheumatism occurring in typhoid must be treated by local means, such as wrapping up the joints in flannel saturated with a solution of nitre, with the idea of reducing local heat and pain. In such a case salol would be the best remedy to start with, as it is applicable both to typhoid and rheumatism. It would not be wise to give salicylic acid, as it is too irritating and depressing in its action.

MORNING DIARRHŒA.

This man, to whom I now call your attention, presents a very peculiar temperature, flushed cheek and palor of the rest of the face. His tongue is coated, has diarrhœa, and a tenderness over the abdomen, most marked in the umbilical region. One year ago he was seized with an attack of diarrhœa that continued for one week. Last November, while husking corn on the wet ground, a slight attack of diarrhœa came on. He recovered from this and came to the city, and here his food disagreed with him and the diarrhœa returned. He would have to go to stool as often as eight times in one night, and blood was present in these stools. Since he has been resting he has improved somewhat. When he came in the blood that was passed was clotted and bright red in color. When he gets cold his abdomen swells. We have, then, in this case, a long continued case of diarrhœa.

Prof. Pepper, of the University of Pennsylvania, wrote of a diarrhœa that occurred once every twenty-four hours, and then consisted of a copious watery stool in the morning, and during the remainder of the day would have no return of it, and no annoyance until the next morning, when it would recur. The patient is frequently disturbed early in the morning and must go to stool at once. At the same time that this article appeared, a French writer called attention to this same condition of morning diarrhœa.

The patient before us was obliged to work, and was exposed to cold air when he had his attack, and, as a consequence, his diarrhœa became worse. What will cause it, I cannot say; but I consider such conditions as diarrhœas of indigestion, and they seem to persist, even in spite of all food, independent of quantity or quality. Every morning this patient had a copious liquid stool, in spite of milk diet; dry diet and the administration of no fluids at bedtime. All this made no difference, although the necessity for the avoidance of fluids at bedtime was insisted upon. He became pale, anæmic and his feet began to swell. I at last told him to eat anything he pleased, and it did not affect the diarrhœa.

I could readily put him on astringents and opiates and stop the discharge, but would it be wise to do so? I put him on a pill of nitrate of silver, gr. ½, and pulv. opium, gr. ⅙, at bedtime, and gave diet as usual, and he improved slightly. The pill was then given at 10 A.M., 4 P.M., and at bedtime, and he has improved so much that he is now nearly well. I am satisfied that my error in this case was, that this man had enteritis, while he suffered from internal hemorhoids at the same time. The treatment is modified on account of this fact of irritation in the rectum, and, to get rid of irritating matter, he is given an injection of a pint of hot starch water before he goes to stool. Probably most of his diarrhœa is due to irritation of the hemorrhoids. I think that it would be best to give sulphur in small doses, as it is the best laxative remedy in hemorrhoids. Wyeth prepares a tablet of sulphur, two or three of which can be taken three times a day and will answer better than the compound liquorice powder.

I think that in this case we must come to the astringent and sedative process early, and must use some silver preparation, oil of turpentine, or oil of erigeron. I am in favor of oil of turpentine, in pearls containing gtt. x, three times a day, which will have a tendency to heal all ulcers in the intestines. Diet must be regulated to suit each individual case, as necessity demands.

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WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

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IS ALL DISEASE NEUROTIC?

WE have recently received three remarkable papers; remarkable in that each calls in question beliefs that are almost classical in their general acceptance by the profession, and each one urging the same variation in regard to a different disease.

In his address before the Pennsylvania State Medical Society, Dr. Mays continued the argument of his paper upon Consumption as a Neurosis. He objects to the bacillar theory in that it has not as yet advanced to any demonstrable extent in the way of curing phthisis. But surely it is no disgrace that a good foundation is laid, even if the house has not yet been built. The exceeding slowness with which mankind learns to use discoveries should not be forgotten. We possess arms and legs for years before we begin to learn what are their possibilities. Charles Lamb said that it probably required ages for mankind to learn that pig could be roasted without burning a house down. The remarkable properties of coca were discovered by Pizarro's Spaniards; but the drug was neglected for centuries until Koller took it up. If, then, little therapeutical advantage has as yet resulted from the discovery of the tubercle bacillus, this is neither a proof that this organism is unimportant nor that no such improved therapy can yet be deduced from that discovery.

His second objection is urged against the infectious nature of tuberculosis; and he quotes statistics from the Brompton reports, from Fuerbringer and Brehmer, to support his views. There are few theories which cannot be proved or disproved if a few statistics supplied from interested observers are to be accepted as final. We have not yet forgotten the anti-vaccination reports, which Körösi showed to have been deliberately falsified by an over-zealous opponent of vaccination. Statistics are of weight in proportion to the broadness of the field they cover, the accuracy with which they are made, the impartiality of the statistician. A few isolated cases are rarely of much value, unless illustrating some special phase. Sydenham's observations upon scarlatina would hardly be received to-day as giving a typical picture of that disease, good and honest observer as he was. It is quite in accordance with these remarks that Cornet's statistics lead to conclusions directly the opposite of those quoted by Mays. And, singularly enough, the decrease of phthisis in the town where Brehmer established his sanatorium is taken by Mays as a proof of non-contagion, while Flick cites it as evidence of the prevention of contagion by segregating consumptives from the healthy.

In regard to the transmission of phthisis from husband to wife, or *vice versa*, Mays quotes from several sources to show in how many cases no such transmission occurs. But in this also he goes too far. He simply gives evidence to show that the disease is not very contagious; that transmission does not necessarily occur. This we will all admit; even granting that there may be fallacies in his figures. But positive evidence will always outweigh negative; and a single case of proven infection goes farther than any number of negative reports. An instance occurred during our student days which is to the point. A farmer came to our preceptor for advice. He stated that consumption was unknown in his family, which had resided on the farm for several generations. He was a robust man, never ill, hard-working, but in easy circumstances that relieved him of the necessity of overwork or exposure. A year or two previously he had married a woman at that time phthisical; and before her death he himself gave evidence of the same disease. Now, here were all the elements of an infection; everything points to this explanation as the most likely to be true. To prove that this was *not* an infection would be far more difficult.

Dr. Mays deprecates the harsh measures adopted by those who accept the contagion theory; the separation of the patient from the family; the rigorous antiseptic measures, etc. There should be reason in all things; but we cannot look upon it as too much to ask that a consumptive should spit in a cup instead of a cloth; that the sputa should be destroyed; the patient sleep alone; and, after death, the premises be thoroughly rendered aseptic. These measures are designed to stay the progress of the principal cause of death all over the world. They are founded on a theory which, though imperfect, is the best at our disposal. Instead of sitting down and doing nothing, folding our hands until the microbe theory is so completely demonstrated that there remains none to doubt it, let us do the best we can with what light we have until we can do better. If consumption is a neurosis, the holders of that belief have not thereby added anything whatever to our therapeutics, nor have they given us a better means of checking the spread of the disease. The worst of all policies is a do-nothing one. A battle can better be won by vigorous action on a bad plan than timorous and inefficient following a good one.

Dr. Lydston gives us an ingenious paper, in which he attributes syphilis to a neurosis. Why not? Nevertheless, we will continue to believe that mercury will do more to cure it than electricity, massage, or any anti-neurotic regimen.

In the present issue Dr. Harkins contributes a paper in which he claims that choleraic affections are alike of neurotic origin. It will be difficult to find

credence for a theory which attributes epidemic cholera, cholera morbus, and cholera infantum to the same and a non-infectious cause. This would be to read the whole modern science of medicine backwards. Nor do we believe that the efficacy of counter-irritation over the vagus proves anything more than that this nerve is profoundly affected by some product generated in these diseases—and, if the remedy is equally efficient in all, it shows that the causal ptomaine is identical in all the choleras. But the one vastly important point in his communication is that blistering over the vagus in the neck produces effects in the cholera group which appear little short of marvelous. This is a matter easily verified, and if extended experience confirms Dr. Harkins' claims, we may thank him for a therapeutical suggestion, even if we do not accept his theory of its action. This is not the only case in which blisters have been found of unexpected utility, even in diseases of microbic origin. Boeck, by his process of "syphilization," accomplished results in the treatment of true syphilis which were afterwards shown to be as easily produced by ordinary blisters as by chancroidal ulcers. In tuberculosis, rheumatism, and pneumonia, the blister holds its place as the most valuable external application; while Dr. Harkins has also taught us the value of a blister over the liver in uncontrollable epistaxis.

Dr. Harkins can hardly be aware of the brilliant results won by the use of intestinal antiseptics in cholera infantum. From many sources we have the best reports from the sulpho-carbolates. At least twenty physicians have informed us of its great utility. In our own practice, this summer has thus far proved as successful as the two preceding—no case of intestinal flux in child or adult has failed to be relieved by this drug.

Annotations.

ANOTHER important discovery has been made in Germany. It is that powders may be taken nicely by twisting them up in paper and swallowing paper and all. To be sure, it is a special paper gotten from Japan, and called "Usego;" but there is not much likelihood that it is any better than tissue paper, which every physician has doubtless used for this purpose.

IN countries where red-tape rules, and official stupidity shelters itself under precedent, there is nothing more annoying to the official mind than the questions which arise from modern innovations, for which no precedent exists. In Austria the family of a man whose body had been cremated in Italy applied to the authorities for leave to keep his ashes in their house. [Why didn't they do it without asking permission?] The authorities were totally unprepared for such a conundrum, and a diligent search through the official rules and regulations showed that the disposal of cremated remains had never been considered. The question was referred to the Minister of the Interior, and he submitted it to the Supreme Sanitary Council of the Empire; and this body, by resolution, permitted the ashes to be kept in the house.

WHAT a comment it is upon the insight into hospital life obtained by the visiting physician, when we read in the evidence submitted to a committee (*Brit. Med. Jour.*) that "Sir Andrew Clark objected strongly to over-crowding, and when he visited the hospital a number of patients were wheeled out of his ward, and within half an hour after he was gone they were wheeled in again!"

If Sir Andrew was wise he would advocate a Board of Lady Managers, and such abuses would quickly cease.

WE recently gave an abstract of Dr. James Barr's paper describing the treatment of typhoid fever by continuous immersion in the bath. The greatest objection which then presented itself was the passage of the excreta into the bath. This, Dr. Barr informs us, through the *Provincial Medical Journal*, has been obviated by an apparatus by which the patient can be lifted completely out of the bath as easily as a window blind is drawn up. As long as the patient is conscious this will doubtless answer; but when the dejecta come away without notice, the continuous bath will become too filthy a method for general use.

AN Iowa girl was noticed to have a gradually increasing enlargement of the abdomen. The physician who was called in confirmed the parents' apprehensions by pronouncing the girl pregnant. Under the stress of this verdict, the girl's best young man was compelled to marry her. But the swelling has turned out to be a tumor; and an operation for its removal has resulted favorably. Now, the parties are debating whether the marriage should be accepted or annulled.

There is a pretty good rule for physicians in making such examinations. The one absolute sign of pregnancy is the beating of the fœtal heart. The examiner either hears this, or he don't; and in the latter case he must suspend judgment.

POST-EPILEPTIC AUTOMATISMS.

COLMAN, in a paper published in *The Lancet*, mentions a variety of unconscious automatic actions following epileptic attacks. The typical spasm has its three stages: First unconsciousness; convulsions, tonic and clonic; and second unconsciousness. Cases vary greatly in the degree to which each of these is manifested. The third stage may be nearly or quite absent; and sometimes in it the patient performs automatic acts of greater or less complexity. This may last some hours, and the patient awake, totally unconscious of what he has done. These automatisms may occur after very slight attacks of petit mal. The author divides them into the following groups:

1. Cases in which the patient merely talks. This resembles the speech of the somnambulist; it is not very coherent, and may be merely the repetition of some words.

2. Cases allied to somnambulism. The patient opens a window; goes into the street in her night dress; puts on clothes; brushes them; sweeps the floor; goes off by train, etc. In procursive epilepsy the patient springs to his feet and runs at full speed, avoiding obstacles.

3. Actions suggested by the feeling of malaise. He undresses, or otherwise indicates his instinctive impulse to go to bed.

4. Kleptomania. It is not uncommon for such patients to pocket any small objects within reach.

There is usually no choice; the nearest objects being taken, though others of greater value are left.

5. Violent acts. These are commonly seen in asylums. Many murderous assaults have been committed in this state. In one case a youth repeatedly tried to mutilate his own genitals, and once a brother's.

6. Micturition. Trousseau's famous case is mentioned, of the judge who left the court room and urinated in a corner of the council room. A young girl seized with petit mal micturated in a crowded assembly.

From these cases he draws the conclusion that it is not necessary that the fit shall be severe to produce such automatic acts. On the other hand, it does not follow that all such aberrant impulses in an epileptic are necessarily automatic. From isolation, mental deterioration, etc., these patients often become morally degenerate, suspicious and irritable.

UNGRATEFUL JERSEY.

OF all the States in the Union, New Jersey profits most by the annual exodus from the cities caused by the summer heats. From the classic precincts of the Navesink to where Cape May is dimly visible through the clouds of mosquitoes, her shores are lined with hostelries, into which are poured millions of dollars annually by the citizens of other States. Others have one or even several summer resorts, but no other State is given over so entirely to the business of caring for summer visitors as is Jersey. For this popularity, among other factors, we may assuredly claim a share of credit to the medical profession. To many persons, in making up their minds where to go for the summer, the comfort of having the family physician within easy reach is enough to decide the choice. This was recognized by the old Camden and Atlantic Railroad, and their liberal distribution of season passes among physicians was probably the principal reason that Atlantic City so far outstripped her rivals in the race for popularity. People liked to go with their doctors; the latter preferred to send their patients where they could be reached easily and with least expense. This gave Atlantic City an advantage over other places just as near, just as healthy, as desirable in every way. But now the work is done, and Atlantic City has got such a start that competition will never catch up to her; and the physicians get no more passes.

And although the Jersey coast doctors reap a golden harvest every summer, which enables them to amuse themselves the rest of the year, they are not satisfied with abundance, but want all. So they have had a foolish little bill passed through the Legislature which compels any city physician who wishes to accompany his patients for the summer, to first go to Trenton, pass an examination before a board of physicians who don't want him in the State, and pay a fee. The result will be that many New York and Philadelphia physicians will turn their steps towards the summer retreats in their own States. They will very soon begin to wonder why they ever left them for Jersey sands; and the result will be a diversion of the stream of popular travel to the mountain resorts. Not only will this apply to those directly interested, but to many others; for it is not the least among the attractions of any resort to know that the celebrated Dr. Smith, or the great surgeon, Prof. Brown, goes there. People are quick to jump at the conclusion that there is something specially valuable about a place which is endorsed by such high authority. We have already expressed our opinion that the sea-shore receives far more attention than it deserves, and think a diversion in favor of the hills will be greatly to the public benefit; but as far as New Jersey is concerned, she is killing the goose that laid the golden egg.

Book Reviews.

To the third and four numbers of Volume XLVI of the "German Archives of Clinical Medicine," Dr. Fritz Moritz, of Munich, contributes "On the Cupric Oxide Reducible Substances of the Urine under Physiological and Pathological Conditions." The presence of grape sugar in normal urine, and the distinction between its normal appearance and as a product of disease, are made the subject of many experiments, and promised further investigation. The principal point made is that the usual methods of investigation resulting in the finding of sugar (Trommer's and Fehling's tests, etc.), cannot in every case be considered as conclusive.

Prof. Fürtner, of Heidelberg, "On the Body-Weight in Psychoses," accompanies his contribution with charts showing the fluctuations, which are especially striking in periodical mania, and establish a definite relation between the loss and the mental condition, and the ultimate recovery of the normal weight, with recovery from the disease.

Prof. Von Ziemssen, "On Comparison of the Pulse on the Two Sides, and its Significance in Disease of the Arch of the Aorta," gives tracings, comparing the two sides, and ascribes the results to stenosis from pressure on the branches of the aorta, resulting from aneurism, or mediastinal tumors.

Prof. M. J. Rossbach, of Jena, in "Contributions to the Knowledge of the Movements of the Stomach and Duodenum," and in a second article, "Observations on Movements of the Bowels in Man," draws the conclusions that in the early morning movements are absent; that they occur in fifteen minutes after introduction of food and alternate with pauses; that of ordinary articles of diet, no appreciable difference of intensity can be detected, except for coffee, which excites strong peristaltic movements; that under all circumstances the peristaltic waves are constantly differing in intensity, and often interrupted with complete pauses; that slight cold (baring the walls to the atmosphere) excites; decided cold (sprinkling with cold water) only slightly affects; that decided sensations of hunger produce lively motions; that emotional impressions, as fright, result in checking for ten or fifteen minutes.

Dr. V. Maximovitsch, of Warsaw, and Dr. Rider, of Munich, "Observations on Variations of Blood-Pressure Resulting from Muscular Exertion and Ingestion of Liquids," conclude:

1. That three to five minutes after exercise begins the blood pressure is increased and the heart accelerated, and that the normal is regained with twenty to thirty minutes rest. In certain pathological conditions, no increase, and even diminution of pressure occurs, accompanied usually with urgent dyspnœa.

2. Ingestion of liquids increases pressure and pulse rate. Beer most, then in their order, wine, coffee, tea, cocoa, and water.

3. Muscular exertion, combined with ingestion of fluids, result in the greatest rise of pressure and pulse rate, and here, too, individual peculiarities and character of liquids modify the results.

4. Certain drugs affect pressure. Inhalation of amyl nitrite causes decided rise of blood-pressure.

Prof. Oswald Verordt, of Heidelberg, "On Tubercular Peritonitis and its Treatment." In view of dif-

ficulties underlying the diagnosis of tuberculous from simpler forms of subacute or chronic peritonitis, and in consideration of the uselessness of tapping and the marked beneficial results of section in some of these instances, he recommends the early resort to laparotomy, after failure of rest and ordinary medical means, and before the onset of exhaustion.

Prof. G. A. Sacharjin, of Moscow, "Syphilis of the Heart," directs attention to diagnostic means, and recommends specific treatment.

Dr. M. V. Frey, of Leipzig, contributes, "Physiological Remarks on Hypertrophy and Dilatation of the Heart." Samuel Wolfe, M.D.

Leçons sur les Maladies du Larynx. Par le Dr. E. J. Moure, Professeur libre de Laryngologie, Otologie et Rhinologie; Directeur et fondateur de la *Revue de Laryngologie*, etc. Recueillies et Rédigées par le Dr. M. Natier, ancien chef de clinique du docteur E. J. Moure, et revues par l'anteur. Avec des figures en noir dan sle texte. Paris: Octave Doin, éditeur, 8 Place de l'Odeon, 1890. 4to., pp. 599.

French physicians have mainly relied upon foreign writers for works upon laryngology during the last fifteen years. In this volume the author records his experience of twelve years' special practice, paying particular attention to the clinical features. The wants of the general practitioner are held in view, in the presentation of typical laryngeal lesions, specially useful instruments, and formulas which have given satisfactory results. Each chapter is preceded by a summary of its contents; greatly facilitating the search of the reader who has a case of which he wishes information. Certain subjects are dilated upon by the author; such as acute œdematous laryngitis, atrophic coryza, dry pharyngitis preceding dry laryngitis, the different modes of treating tubercular laryngitis, the paralyses and contractures of the laryngeal muscles, the existence of a cortical center, etc. The anatomical description of the larynx found in all classical works on anatomy is omitted, except so far as it is necessary to elucidate the paralytic affections. Laryngeal hemorrhages are relegated to the disorders of circulation, instead of describing a hemorrhagic laryngitis. Vocal troubles are recognized to be consecutive to catarrh, or due to muscular disorders. Laryngeal lupus is a rare form of laryngeal tuberculosis. The arrangement is rather clinical than anatomical. The epidemic of influenza occasioned the addition of a chapter on that affection to the work. The illustrations are few in number and poor in execution, as compared with those in recent American works.

Practical Sanitary and Economic Cooking; adapted to persons of moderate and small means. By Mrs. Mary Hinman Abel. The Lamb Prize Essay. Published by the American Public Health Association, 1890. 12mo., cloth, pp. 182.

A plain and sensible little book, dealing with the question of diet as it presents itself to persons of small means and average education in the culinary art. It is a good book to place in the hands of those who would find the ordinary cook-book, with its well-stocked larder and fancy grocer's stores, almost useless.

Pamphlets.

A Case of Hæmatoma of the Ovary following Chronic Catarrhal Salpingitis; with Operation and Recovery. By R. Harvey Reed, M.D. Reprint from *Cincinnati Lancet-Clinic*.

Gunshot Wounds of the Abdomen. By Aug. Schachner, M.D., of Louisville. Reprint from *Annals of Surgery*.

The Medical Digest.

Basch reports unfavorably on hydracetin, finding it unreliable and toxic.

A saturated solution of camphor in olive oil will dissolve 6 per cent. of iodoform.

Red bilberry (Vaccinium Vitis Idæa, Linn.) is a Russian remedy for chronic rheumatism.

Iodism, according to Grœnow, is sometimes manifested by a rapidly supervening œdema of the glottis.

Methylene blue is said to be an efficient analgesic, when given in doses of one to four grains. It can be used hypodermically if pure.

Porcher speaks highly of phenacetine as a hypnotic. Seven to ten grains is the dose, given at bedtime in a little water.—*Med. Record.*

Chronic articular rheumatism is one of the *opprobria medici;* but Hochhalt confirms Korda's recommendation of pilocarpine as of decided benefit.

Naphthol can be given internally by dissolving it in oil of sweet almonds, one part to ten, by the aid of heat. The oil can then be made into an emulsion.

Seaman (*Med. Record*) has invented an apparatus by which a double stethoscope is united to a percussion hammer, so that the stroke of the latter is conveyed directly to the ear.

Kendal Franks (*Brit. Med. Jour.*) describes a renal calculus removed by operation, which was found to have an ordinary sewing needle as a nucleus. The needle was supposed to have been swallowed seventeen years previously.

Muller states that in persons suffering with cancer the excretion of nitrogen far exceeded the amount ingested; the excess being derived from the albuminoids of the body. The chlorides were notably diminished.—*Med. Record.*

Handfield Jones mentions four cases in which castor oil produced unexpectedly violent effects. The English oil is very inferior to the American; the former often containing irritant elements, which the expression process used here leaves behind.

Methacetin, recommended by Meinert as a good antithermic for children, is also endorsed by Seidler. Five to ten grains is the dose. Free sweating attends its action. The temperature begins to fall in from fifteen to thirty minutes, and reaches its maximum in three hours.

Enphorbia pilulifera has been given by Workman (*Ther. Gazette*) in twenty-seven cases, with these results:

In thirteen cases of hay asthma, prompt relief ensued in nine; partial in one, and none in three.

In nine cases of coryza, good results were obtained in six.

In five cases of asthma, marked relief was experienced in one only.

The fluid extract was given in doses of 30 to 60 minims every four hours.

BELL (*Lancet*) suggests that in rheumatism the salicine compounds act as antiseptics, destroying or paralyzing the pathogenic virus, and thus enabling the kidneys to more efficiently perform their functions. Much the same effect is produced by frequent rectal enemata, cutting off the supply of toxic matter absorbed from the bowels.

CUNNINGHAM (*Indian Medical Gazette*) reports that three distinct species of comma-bacilli are found in cholera stools. These related to the three hospitals from which his material was derived. This suggests a means for reconciling the conflicting statements in regard to various points in the life-history of the comma-bacillus.

EMPYEMA is treated by Fernet by injections of naphthol, in diluted alcohol; naphthol, 5 parts; alcohol, 33, and water, 62. Four or five drachms of this are injected after the pus has been evacuated. This is repeated five times, at intervals of three days. This method is applicable to cases unsuitable for operation, infectious and circumscribed cases.

MULTIPLE VESICAL CALCULI.—Cunningham describes in the *British Medical Journal* a case in which twenty-three calculi were removed from the bladder, and twelve more from the urethra of a patient, in one day. Lateral lithotomy was performed, the incision being made to include two fistulas. The total weight of the calculi was 460 grains. The patient recovered.

CASCARA AMARGA is recommended by Haines (*Therap. Gazette.*) as almost specific in the ulcerations of tertiary syphilis. The drug was given internally to his case, with iodine; but as the patient had failed to improve upon iodine alone, and all improvement stopped when the supply of cascara ran out, and when a new supply was procured the patient resumed her progress toward health, Dr. Haines is warranted in attributing the cure to the cascara.

ANTHRAX.—Casson describes three cases of anthrax (*Brit. Med. Jour.*) occurring in Persia, in which he used with success hypodermic injections of sublimate. In the first case, two drachms of a 1–1000 solution were injected into the brawny tissue at four different points, and the same solution applied on a compress. The following day the patient's condition was much improved, and half the quantity was injected. Two days later, one more drachm was injected; and the cure was complete in ten days. The other cases were very similar.

HOFFNER says that bromide of ethyl should be administered by pouring two and one-half to four drachms over a sponge, in a tightly fitting mask covering the nose and mouth. In twenty to thirty seconds the anesthesia is sufficient to allow of short operations, and when the mask is removed, consciousness returns almost immediately. This is the anesthetic for consultation examinations; especially as it abolishes pain while consciousness remains; but as it does not produce muscular relaxation, it is not suitable for hernias or luxations.—*Provincial Med. Jour.*

VOLUNTARY BORBORYGMUS.—An interesting example of borborygmus, in which the patient was able to produce the intestinal gurgling at will, is described by Dr. B. W. Richardson, in the *Asclepiad* for June, and commenting on it the writer remarks that cases of this kind are the nearest to any of hysteria in the male subject, being sometimes attended by indication of globus hystericus, as in the patient under consideration. Such patients learn by a kind of abnormal instinct how to call into play symptoms of a peculiar order, like this induced borborygmus, the *modus operandi* being muscular pressure on the descending colon at a time when it was distended with gas.

—*Med. Press.*

SALOL IN CHOLERA.—The *Indian Medical Gazette* for May contains two reports. Hehir treated seventy-seven cases with sublimate, with thirty-nine deaths. Eleven cases were treated with salol, and all recovered. The drug was given in doses of 10 grains every two hours, with 15 minims spirits chloroform. No immediate change took place, the symptoms gradually abating. Two marked effects were the absence of uræmic symptoms and the short convalescence. These cases occurred at the close of the epidemic, when the tendency to recover is greatest. Stevenson reports four cases treated by salol, all of which died; two with suppression of urine.

INVERSION OF THE UTERUS.—1. Traction upon the cord does not produce inversion of the uterus; it facilitates it in cases where inversion is inevitable.

2. Inversion of the uterus is preceded by paresis of some portion of the uterine wall.

3. That paresis most frequently results from excessive stretching or laceration of muscular fiber, and is not governed by the location of placental attachment.

4. Excessive thinning of the lower uterine segment favors inversion of the uterus by temporarily impairing or destroying the power of muscular tissue.

5. When paralysis of the lower uterine segment exists, either spontaneous expulsion or expression of the placenta will be more apt to produce inversion than traction upon the cord.

—McCoy, *Ind. Med. Journ.*

DIET FOR OBESITY.—July and August.

Meat.—Beef, mutton, grass-lamb, buck-venison, veal.

Game.—Fowls, chickens, pullets, turkey-poults, rabbits, leverets, plover, wheatears, wild chickens, pigeons, wood-pigeons, grouse.

Fish.—Dace, dory, cod, carp, brill, barbel, crabs, crayfish, flounders, haddock, ling, mackerel, lobsters, mullet, thornback, plaice, pike, soles, tench, gurnet, perch, dabs, prawns, whitings, trout.

Vegetables.—Kidney, windsor and scarlet beans; asparagus, cresses, vegetable marrow, artichokes, celery, endive, chervil, cabbage, cauliflowers, cucumbers, shallots, leeks, sea kale, lettuces, mushrooms, salsify, spinach, sorrel, radishes, turnips, salad, peas, tomatoes, onions, sprouts.

Fruits.—Apples, oranges, pineapples, currants, cherries, damsons, gooseberries, strawberries, raspberries, plums, peaches, nectarines, filberts.

—From Davies' *Food for the Fat.*

AT the Royal Academy of Medicine in Ireland, Dr. Conolly Norman read a paper on acute confusional insanity. He pointed out that this form of psychoneurosis occupied an intermediate place between acute mania and the acute dementia of the older classificatory schemes, and contained a very large number of cases. It is characterized by engagement of consciousness in the form of dreamlike confusion, together with hallucinatory disturbance. It is interesting to others than specialists, because it is the form of mental disturbance which is most often associated with diseases not primarily affecting the nervous sys-

tem. Puerperal, post febrile, rheumatic, phthisical, and other varieties of insanity depending on general diseases, commonly take this form. Dr. Norman dwelt upon its frequency in alcoholic cases, and pointed out that the peculiar mental disturbance described by Korsakow, Ross, and Wiglesworth, as accompanying alcoholic neuritis, was a variety of acute confusional insanity. He detailed a number of illustrative cases, including several alcoholic ones, and defended the differentiation of this affection on etiological and prognostic grounds, as well as because the distinction tended to more accurate clinical description.—*Med. Press.*

THE TREATMENT OF CYSTITIS IN WOMEN.[1] (By Thomas More Madden, M.D., F.R.C.S.Ed.)—Of all the diseases which come before us in gynæcological practice, there is none more frequently met with, more distressing in its effects, or more intractable to the means generally relied on for its relief than cystitis in women. I therefore desire to bring under the notice of the International Medical Congress a method of treatment which I have found, by clinical experience, to be generally successful in the rapid curative treatment of this condition. The measures most commonly employed in such cases are merely palliative, and may relieve, but *per se* can never cure, well-established cystitis in women. Nor am I aware of any method by which that can be accomplished save by giving the bladder absolute physiological rest. For this purpose, Dr. Emmet's operation—*i.e.*, the establishment of an artificial vesico-vaginal fistula—may be successfully employed in some instances; but the practical objections to it are so great and obvious that, for several years past, I have abandoned this procedure in favor of another, which I have found more generally effectual, and quite free from the disadvantages of the operation referred to. The plan, which I have now employed in a very large number of cases of cystitis in the gynæcological wards of the Mater Misericordiæ Hospital, Dublin, consists, firstly, in the full dilatation of the urethral canal with the instrument exhibited, so as to paralyze the contractility of the sphincter vesicæ and canal, and thus produce a temporary incontinence of urine; and, secondly, in the direct application, through the same instrument, of glycerine of carbolic acid to the diseased endo-vesical mucous membrane. I may add that any pain thus caused may be prevented by the previous topical application of a solution of cocaine, and that the procedure recommended seldom requires to be repeated more than once or twice, at intervals of a week or ten days; and, combined with the internal use of boric acid, rarely fails to effect a rapid cure in any ordinary case of female cystitis.

GLEANINGS FROM THE MEDICAL WORLD.—

Antifebrin has been noticed to cause a mild cystitis. —G. T. Converse.

When a truss-pad irritates in old hernias, apply the faradic brush to the skin, give arsenic, quinine, and strychnine, and apply an air cushion or soft rubber pad to retain the hernia. —T. W. Forshee.

In an extreme case of inflamed breast, I used a fluid extract of phytolacca (green root), making a strong lanoline ointment and giving full doses internally. Complete success. Forty-eight hours decided the case. —L. H. Kitchell.

For warts, remove the outer scarf and apply a saturated solution of ammonium chloride several times a day, until the wart disappears.

For seat-worms, use the remedies in suppositories with cocoa butter.

For hypertrophy of the heart, use tinct. kalmia latif. —C. M. Brucker.

For superficial ulcers or inflamed surfaces, including burns, [crude] coal-oil is antiseptic, sedative, and generally healing. —G. T. Dunlap.

Sixteen cases of small pox with three deaths. Jaborandi was employed to prevent "striking in." —G. S. S.

Phytolacca has proved a specific for diphtheria; 32 out of 34 cases being treated successfully with it. The fluid extract was given in doses of 2 to 6 drops every two hours, and a gargle used every hour, of 50 drops in a glass of water. —S. A. Gifford.

A popular and often fatal error is the idea that children's bowels should always be very loose during dentition. Children never have diarrhœa from cutting teeth in winter. For a child in its second summer, saturate it with hot water; when it wakes, give calomel, gr. ij, ipecac, gr. ⅓, and soda bicarb., gr. iv, every hour. Have bowels moved in six hours; after which, if the stools are watery, give ⅓ to 1 drop of fl. ext. belladonna every hour or two; also bismuth tannate, gr. v, pulv. dover, gr. j, lactated pepsin, gr. j, as needed. If the dejections are offensive, creasote with a little chloroform water. Quinine is often needed for fever, and for dry skin a warm bath and jaborandi. —S. A. Butterfield.

SPANISH TRANSLATIONS.

By DR. WM. F. HUTCHINSON.

COCAINE IN SHORT OPERATIONS.—At the children's clinic of Prof. Del Rio, at Santiago, the following record was made.

"A boy of thirteen years was admitted for amputation of the right index finger, destroyed by a circular saw. So great was his fear of anesthesia, by reason of suffering during a previous experience, that it was decided to try cocaine. Following the line of the projected incision, five dermic injections of a few drops each were made, in all six centigrammes of a six per cent. solution.

"Two minutes later the cutting began, and was absolutely painless, including trimming off torn flesh and section of bone. After hemorrhage, which was but slight, was controlled, five stitches were taken without suffering.

"The time occupied by the operation was from eight to ten minutes, during all of which no pain was felt by the patient, nor any sensation except contact of the bandage, and this was attributed to a neighboring finger.

"It is Del Rio's opinion that very much is to be expected from cocaine in short operations, and that in those cases where its use was a failure, it was on account of the faulty way in which the injections were made. They should always be made into the skin proper, never subcutaneously.

"The amount used in this case gave rise to no accident, and the wound healed by first intention."

TREATMENT OF GONORRHŒA.—The strongest indications for treatment are, of course, twofold:

1. Destroy gonococci.
2. Restore to normal equilibrium the various disturbances induced by them.

The prompt and permanent removal of destructive conjunctivitis venerealis in the new-born child con-

[1] From advanced proofs.

clusively shows that gonorrhœa, under certain conditions, may be quickly and radically cured.

The internal remedies are chiefly copaiba, santal, and terebe, and certain mineral waters.

For urethritis iodoform pencils are useful. Dilatation is needful only when marked tenesmus is present.

Urethral ulcers are best touched with nitric acid or with the thermo-cautery, as lunar caustic is prone to lead to atresia.

For vesical catarrh it is sometimes needful to wash out the bladder; the best materials are corrosive sublimate, 1–8000 to 1–6000, by means of Küster's glass funnel; acetate of lead, 1–1000 to 1–500; nitrate of silver, 1–2000 to 1–500, and in bad cases even stronger. If the ureters and pelvis of kidney be seriously involved, we may think of colpocystotomy.

Bartholinitis is often difficult to cure; the entrance to the follicle cannot be approached. Local cleanliness greatly aids matters. Small Bartholinian abscesses should be freely opened with full antiseptic precautions. By far the best plan is to extirpate altogether by means of Paquelin's cautery.

Sänger says: "I have often seen severe pelvi-peritonitis as a result of neglected Bartholinian abscess."

Both for chronic Bartholinian inflammation and for fistula of these glands complete extirpation is absolutely needful.

For condylomata, if small, caustic may be used; for the larger growths scissors and the thermo-cautery answer well. Intertrigo and erosions promptly disappear by observing strict cleanliness, and by the removal of the corrosive discharge.

Pruritus vulvæ is sometimes rather intractable. Irrigations with solution of oak bark; painting with glycerole of tannin, also, weak preparations of boric or of carbolic vaseline; hot sitz baths, and the free use of soft soap are to be commended, also, ichthyol and liquor carbonis detergens.

Oppenheimer has made many careful experiments on the gonococcus with the various poisons which would prove the least inimical to the living tissues. He finds that corrosive sublimate and creasote kill the coccus most quickly and certainly. Sänger prefers these, therefore; and the next best, but a long way off the perchloride of mercury in value, is the chloride of zinc.

For acute vulvitis and colpitis he uses a solution of from 1–2000 to 1–500, according to circumstances.

For the cervix and the urethra Angerer's sublimate pencils are useful. These are of the strength of 1–1000. They are placed in the respective canals, and, being retained by means of absorbent cotton pads, are allowed to melt *in situ*.

For a very bad case the following treatment is excellent; Fill the vagina with tampons of glycerole of tannin, carefully packed; next day remove the tampons, and with it the superficial layers of epithelium will come away; now douche well with soapy water, then with plain water; afterwards syringe with the sublimate till no flakes come away; now swab the whole carefully with the sublimate solution on absorbent cotton mounted on forceps or a stick; dry out well, and again pack the vagina quite full with iodoform gauze, or, still better, with glycerole of iodoform.

In cases where there are "adenoid" neoplasms, it is well to pencil over the whole vagina with tincture of iodine finally.

Endometritis Gonorrhoica.—The leading indication in this disease is to keep the cervix thoroughly patulous. This is needful to get rid of the tough, ropy mucus which often blocks the canal, and is an element of peril as well of pain. For, acting like a dam, it keeps back clots and various discharges. It does not do to depend upon one single dilatation. The ostia must be kept dilated. Sänger keeps the cervix open by means of a glass rod. Sometimes he prefers to plug the cervical canal by means of iodoform gauze, having started the dilatation by means of a fine laminaria tent dipped in iodized phenol. Though he views with disapprobation the American plan of curetting the endometrium, condemning it, in point of fact, as leading to endometritis acuta, metritis, salpingitis, and pelvic-perimetritis, Sänger does not hesitate to irrigate the endometrium. Using a double canula he washes out the uterus with solutions of sublimate, sometimes adding to it zinc chloride, creasote, carbolic acid, or creoline. He also recommends swabbing out the interior *à la* Lombe Atthill, with 10 per cent. of chloride of zinc or a mixture of tr. iodine 1.5, and zinc chloride 50 per cent. The use of silver nitrate he has abandoned because of its tendency to lead to atresia cervicis. To treat these cases successfully they must be put to bed from four to eight weeks. It is sometimes well to explain to the friends that exudation often extends to the uterus, to the ureters, to the bladder, but more especially into the rectum. Occasionally a perforation takes place into the rectum, and under these circumstances the case is mistaken for one in which purely intestinal disease has supervened to complicate matters. Next to rest Sänger speaks highly of ice bladder to the abdomen. Opium given internally, combined with a very rigid diet. Hot vaginal douches are lauded, but with certain restrictions. They are never to be used in the acute or subacute stages of pelvic inflammations, because they increase the tendency to pyogenic change. Of course, massage is contra-indicated at this period. Saline and mud baths act wonderfully in the chronic stages. The best are Franzenbad, Elster, and Kreuznach. Pyosalpinx occasionally bursts into the peritoneal cavity, but this is rare; more frequently the pus finds its way into the bladder, into the vagina, or into the rectum. If we suspect a rupture into the peritoneal cavity, of course the right treatment is to open the abdominal cavity and wash out well. Sänger appears to be very shy of removing the appendage, he hedges it 'round with so many restrictions; finally saying that it should be done only in quite hopeless cases, more particularly if they be associated with tubercle. A contemplation of the foregoing facts must convince us that we are dealing here with a problem of vast social importance which cannot be safely ignored, and will not be conveniently shelved.

Purulent Ophthalmia of the New-born.—It is to be remembered that conjunctivitis purulenta may be purely catarrhal. But in intensity it is a very different disease from the alarming venereal form so terribly destructive to the vision that every pre-parturient woman should be ordered germicide douches on the merest chance of the presence of active diplococci. If one or more preceding children have had severe purulent ophthalmia, it is a highly confirmatory element in di gnosis.

Prophylaxis.—Sänger attaches great importance to sublimate injections about 1–1000. These can be persevered in for one month without salivation, not without peril after delivery. The power of infecting in men is protracted far beyond the limit that might seem probable. Thus Oberländer, quoted by Sänger, observes that gonorrhœal virus will remain active during not less than fifteen years, in cases where the membranous portion of the urethra has been affected, and the ducts of the seminal glands are involved.

—*The Medical Press.*

Medical News and Miscellany.

DR. H. S. STETTLER is at Asbury Park.

DR. N. DAVIS, of Camden, has a cottage at Ocean City.

DR. J. H. GROVE and wife are at the Wiscasset, Pocono.

PROF. WOODBURY is at the Glen Summit for the summer.

DR. T. H. ANDREWS has visited Mayor Fitler at Elberon.

TWO English colliers traded wives. Better endure the ills, etc.

DR. MILTON J. ROSENAU has gone on a trip West to visit relatives.

Dr. GOODSON was killed at Bodie, Cal., by the explosion of a steam boiler.

DR. J. P. PATTERSON, of 1305 North Broad street, had his horse stolen last week.

DR. R. S. WHARTON is resting at Atlantic City from his hard work at Johnstown.

DR. LEVIS has been quite ill at his residence at Kennett Square, but is now recovered.

DR. E. G. O'MALLEY, of Wilkesbarre, was thrown from a horse and killed at Aspen, Colorado.

RICHMOND, Va., has—with a population of 100,000—no city hospital, and no public city dispensary.

DR. EUGENE E. FALKNER, of Bridgeport, Conn., was killed by a train while crossing a track in his carriage.

DR. JOHN E. ENSELL attempted suicide in New York last week by shooting himself. The wounds proved fatal.

THE Woman's Medical College, of New York, expects to move into a new and commodious building the coming fall.

DR. JOHN H. MUSSER, of Fortieth and Locust streets, has left for Europe to attend the International Congress.

DR. J. C. HUTCHINSON (formerly of Philadelphia, now of Wild by-the Sea) is building a handsome cottage at that place.

PASSENGERS arriving in New York from Havana state that the yellow fever is raging there; fifty cases a day are reported.

DR. LEONARD R. ROECKER, of Walnut street, is a guest of Judge Gordon, at the latter's beautiful cottage at Spring Lake.

THE July number of the *Medical Mirror* contains a very good portrait of Dr. E. A. Wood, of Pittsburgh, "the Lion of Peru."

DR. CHRISTIAN H. F. PETERS, the astronomer, was found dead in his bed at Clinton, New York, on Saturday morning last.

B. C. MORTON, JR., son of a physician of Guyton, Georgia, last week shot and killed two brothers in a quarrel over a mule trade.

LEPROSY has affected five thousand of the forty thousand natives of New Caledonia, and is now beginning to attack Europeans.

PARIS gossips declare that one of the regular physicians who was most conspicuous in ridiculing Dr. Brown-Séquard's "elixir" has just been cured of paralysis by its administration, and is now as zealous an advocate of Séquard as he was previously a scoffer.

DR. STEPHEN E. KETCHUM, of the resident staff of the Philadelphia Hospital, will take a trip to Boston, by water, for a vacation.

DR. JOSEPH TAYLOR, of Kennett Square, a brother of the late Dr. Franklin Taylor, died last week at the Cataract House, Atlantic City.

AN epidemic of typhoid fever occurred recently at Waterbury, Conn. Forty persons were infected from a dairy farm in the neighborhood.

DR. REBECCA FLEISHER sailed for Europe on the 5th inst. for the purpose of visiting her brother, Mr. Simon Fleisher, who went abroad.

RED BANK'S attractions attracted to its banks last week Drs. Jas. Radcliffe, of Washington, J. R. Jester and J. Kingsbury, of Philadelphia.

THE thirteen-year-old son of Dr. Freeman, of Hellertown, Pa., was killed, and five others were injured, by a wind-storm at that place last week.

DR. OTTMAR ANGERER has been promoted to Ordinary Professor of Surgery at Munich, and Interim Lecturer and Operator in Clinical Surgery.

THE mid-summer meeting of the Luzerne County Medical Society will be held at Glen Summit Hotel, Glen Summit, Pa., on Wednesday, August 6, 1890.

THE *Med. Press* says that a man was found near Eastbourne, with four nails driven three inches deep into his head. They were removed, with difficulty.

DR. ALEX. P. LONG is cruising about the Chesapeake Bay in his yacht, Hustler, with headquarters at Oxford, Md. He returns to Philadelphia September 1.

AMONG the many good things for which Holmes is responsible there are none more felicitous than when he describes the doctors as "the soft-handed sons of toil."

DR. F. N. OGDEN, Past Assistant Surgeon of the U. S. Navy, and now stationed at the League Island Naval Station, is sojourning with his bride at Atlantic City.

DR. PAUL GIBIER, of the Pasteur Institute, sailed last Saturday for Europe. He will visit M. Pasteur, in Paris, and then attend the International Medical Congress.

SOME railroad companies hire doctors by contract and get a large amount of work from them, including some expert testimony, for a very small salary paid to them.

IN the *Maritime Medical News* Maclarin states that ten English-speaking people are recorded as having acquired leprosy by residence in the leprous district of Nova Scotia.

THE regular meeting of the Order of Military Surgeons, of New Jersey, was held at the Medical Department, Headquarters Second Brigade, N. G. N. J., Sea Girt, on Thursday.

THOS. W. R. BISHOP, of Atchison, Kas., died in that city on July 17th after twenty-four hours illness, of what "two prominent physicians" pronounce "undoubtedly Asiatic cholera."

A YOUNG woman walked into the office of the Philadelphia Hospital last Wednesday, and requested admission to the Maternity Hospital. She remarked that it would be necessary to act quickly in the matter; and thereupon proceeded to demonstrate the entire truth of her proposition by lying down and having her baby then and there.

He is not a dentist any longer; he is an Orist.

Dr. Kölliker reports unfavorably of the use of pyoctanin in surgical practice.

St. Louis utilizes her bridge over the Mississippi as a sanitarium in hot weather. The breeze from the river renders it a pleasant spot.

The Committee of Charities of the Massachusetts Assembly has framed a bill requiring iron fire escapes to be constructed on the outside of all asylums for the insane throughout the State.

Dr. von Nussbaum, of the University of Munich, has received the Order of Merit of St. Michael of the second class, in recognition of his services as a teacher and a man of science.

In the Madras famine of 1877-8, at the Famine Relief Camp, 86 per cent. of the men and 83 per cent. of the women had wasted till they were barely two-thirds of their normal weight.

Dr. J. A. Woodward, of 1118 Walnut street, Philadelphia, had his room entered by a thief while sojourning at the Porter Cottage, Atlantic City. The doctor lost some valuable property.

A Canton street family ate some ham they had begged, and followed it up with bananas, onions, bologna and beer; and two doctors are trying to find out what gave them cholera morbus.

St. Vincent's Hospital, New York, is to be enlarged, shortly. A wing is to be built along Twelfth street, from the wall of the present building on that street, to the corner of Seventh avenue.

Mr. John Girvin, son of Dr. Robert M. Girvin, one of West Philadelphia's most prominent physicians, is sojourning at Bar Harbor. The doctor expects, also, to leave shortly for his vacation.

"Dr." A. Wilford Hall, the man who cures all earthly ills and ensures the hereafter by pumping a gallon of hot water into the rectum, has got into trouble by practising without being registered.

Dr. H. W. Mitchell, of New York, was robbed of his gold watch and chain and diamond ring, while bathing at Asbury Park last week; he had left them in the bath-room, from where they were taken.

Colonialism is exemplified in India, where, with its full opportunities for studying leprosy, they wait to legislate until England's physicians, who never see the disease, decide whether it is contagious.

The "epidemic wave" theory of influenza has been pretty generally knocked about by the late epidemic. The disease is still heard of as attacking places remote from the lines of travel, like Iceland.

The estimation in which the surgeon is held on an English ocean steamer may be seen by the comparison of his pay with that of other employés: Captain, $250 per month; chief steward, $50; chief cook, $60; baker, $50; saloon stewards, $25; firemen, $22.50; surgeon, $20.

St. Louis is dissatisfied with her census return; Supervisor Weigel having made it only four hundred and forty-eight thousand. Had she one or two hundred thousand paupers, anarchists, etc., as some other cities, she would be better pleased. She, however, should take comfort in the fact that though she is short on vulgar numbers, she is long on her tax returns, clearing house reports, number of new buildings, increase of manufactures, and in fact everything that goes to indicate prosperity, culture, home comforts, and a life worth living.—*Med. Mirror.*

Medico-Chirurgical College of Philadelphia.—W. C. Hollopeter, M.D., has been elected Lecturer on Diseases of Children; and Ernest B. Sangree, M.D., Director of the Histological Laboratory.

The W. C. T. U. has secured laws in all but eleven States requiring that scientific teaching relative to the effects of stimulants and narcotics upon the human body shall be given in all grades of the public schools.

A not wholly reputable party of three men and three women took a trip on the Delaware in a yacht belonging to a Dr. McGlaughlin, on South Fifth street, and while bathing, one of the women was drowned.

Dr. James Strawbridge, of Danville, died of apoplexy, July 19. He was a brigade surgeon in the late war; spent three months in Libby prison, and represented the Thirteenth district in the Forty-third Congress.

It has been authoritatively ascertained that nearly one hundred persons—mostly women—lost their lives in the dreadful holocaust at the Tongue Pointe Asylum. A large number have since died in consequence of the exposure.

Florence, Italy, is especially generous in medical charities. The Misericordia provides gratuitous nursing, food and care of children, and La Guardia gives medical attendance at all hours of the day or night, to all who are unable to pay.

The natives of New Holland perform oöphorectomy upon girls, to provide a class of prostitutes who will not unnecessarily increase the population; and in case of any natural defect, such as mutism, which they do not desire to transmit to posterity.

The *Medical Mirror* gives an excellent account of the Pittsburgh meeting of the State Society, but in one point we fear brother Love's gallantry failed him. He states that Dr. Bennet is in the neighborhood of thirty-five. We beg to state our belief that she is just twenty-nine.

Dr. M. H. Prowell, a druggist of Steelton, and a graduate of Jefferson Medical College, was convicted for carrying on the business of an apothecary without having obtained a certificate of competency and qualification to do so from the State Pharmaceutical Examining Board.

There is nothing slow about European medical journals when it comes to giving their readers the latest and most valuable news. In the *Dublin Journal of Medical Science*, for July, we find the mortuary records of British cities up to May 17, and the Dublin meteorology for May.

Contributions to the Sanitarian Association, a most worthy work, may be sent to Daniel Baugh, President, 20 South Delaware avenue; George D. McCreary, Market Street National Bank; John T. Bailey, 1136 Market street, or Dr. Eugene Wiley, 330 Reed street, Philadelphia.

Dr. R. C. Word, a prominent physician of Decatur, Georgia, died last Sunday. He occupied the positions of Professor of Physiology in both the Medical and Dental Departments of the Southern Medical College in Atlanta, and was for many years associate editor of the *Southern Medical Record.*

Drs. J. C. McKee, U. S. A., A. C. Bournonville, J. C. Hall., R. C. Agnew, O. H. Sternin, J. A. Fowler, of the *Scientific American*, W. W. L. Rickard,

W. L. Gillam, J. B. Maloney, J. M. Frese, M. W. Gilmer, T. D. Fairheller, H. M. Stokes, D. L. Adams, C. P. Turner, R. M. Keely, Jr., E. G. Shortlidge, of Wilmington, J. C. Morgan, Wiehle, and W. W. McClure registered last week at Atlantic City.

DURING the week ending July 19 there were 152 new applications for treatment at the Howard Hospital, Broad and Catharine streets. The number of visits to patients was 927, of which 126 were made by the Resident Physician to the patients' homes. The prescriptions given numbered 1,118, and the accident cases treated were 26.

THERE is said to be an opening for American dentists in India. In Madras there is no dentist for three hundred thousand people; and one has to travel one thousand miles to Bombay, where the only dentist uses no gold, and charges $7.50 a tooth.

We regret the opening is not for doctors, as nearly all our neighbors could be spared.

Merck's Bulletin for June exploits pyoctanin, the long-sought ideal antiseptic, which does all those things which it ought to do, and leaves undone those things which it ought not to do. Stilling has used it with marked success, especially in suppurative diseases of the eye. It is presented in the form of powders, ointment 2 per cent., pencils, etc.

THERE have been four hundred and forty-five cases of cholera infantum during the last two months; of these two hundred and fifty-one have been fatal. Last week the Board of Health declared the drainage of Wissahickon Inn and a private residence a nuisance, by reason of their discharge of sewerage into a tributary of the Wissahickon, which contributes to the city water supply.

PATENT NEWS:—

Making aluminum	C. Netto	Dresden, Germany.
Dental articulator	J. W. Moffitt	Philadelphia, Pa.
Dental polishing pencil	K. C. Whaley	Pomeroy, Ohio.
Surgical brace	L. Blattmach'r	Brooklyn, N. Y.

TRADE-MARKS.

Powdered medicine for catarrh	J. T. Rosenheimer..New York, N. Y.
Medicine for the cure of diseases of horses	Harthill & Anderson, Louisville, Ky.

LABELS.

"A Pure Gluten Food for infants and invalids"	Crystal Springs Mfg. Co. ..... Boston, Mass.
"Cannon's Lithiated Alkaline Elixir of Phytolacca"	D. C. Cannon. ..... Norfolk, Va.
"Dr. James' Stomach Bitters"	J. W. James & Co.... Brady's Bend, Pa.
"Harriett M. Burnham's Rheumatic Cure"	H. M. Burnham..... Melrose, Mass.
"William Miller's Chicken and Turkey Cholera Remedy"	W. Miller..... Brantford, Kans.

PATENTS EXPIRED JULY 8, 1890.

Abdominal supporter	M. M. Merrill.
Medical compound	D. J. Gish.
Medical compound	A. Racicot.

—CHARLES J. GOOCH, *Patent Attorney.*

CHILD-LIFE INSURANCE.—The Rev. Benjamin Waugh, whose name has become a household word in connection with child-life insurance, contributes an able and convincing paper on the question to the *Contemporary Review* of this month. He recommends as a remedy for this cruel kind of murder "that the handling of money benefit by a child's death be totally abolished, rendered impossible. Parliament must be called upon to make the system of child-life insurance as illegal as it is baneful. Let provision for funerals take its place, and, as in sick clubs, when a child is ill payment must not go to the parents, but to the doctor; so in burial clubs, when the child dies payment must go not to the parents, but to the undertaker. And let any tampering with the law be treated as what it now actually is, conspiracy to murder. Whether it be by societies, their agents, the undertakers, or the parents, it must be treated as a serious crime against both the bodies of children and the welfare of the State." We most heartily commend Mr. Waugh's humanitarian sentiments to the consideration of the Legislature.—*Med. Press and Circ.*

Is it an advantage or otherwise, that among the mountains there is no single resort that attracts the crowd, the lovers of excitement and bustle, as Atlantic City does? Rest, peace and quiet, social pleasure and restoration of health are the objects sought and found in the hills.

Delaware Water Gap is lovelier than ever before; and all the hotels are full of pleasant people.

Lake George is lined with Philadelphians. Dr. McCandless is at the Sagamore, Dr. J. N. Henry, of N. Y., at the Lake House, and Dr. J. D. Gorman, also of N. Y., at the Sheldon House.

Highland Lake, in its second year, has jumped at once into favor. Three large and good hotels, two thousand five hundred feet above sea-level, with beautiful scenery, within easy reach of the great cities, offer special attractions. Good fishing is to be found. Drs. Du Ford, Campbell and Koser, of Williamsport, Prof. Wormley, of the University, and Prof. A. C. Thomas, and their families, are among the guests.

Eagle's Mere is one of the places which, when one visits it one season, he comes back the next year and brings his friends. Cool nights, pure water, and fine bathing are among its attractions.

WEEKLY report of interments from July 12 to 19, 1890:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess		1	Hemorrhage	2	1
Asthma	1		Homicide	1	
Apoplexy	6		Inflammation brain	2	10
Bright's disease	11	1	" bronchi	3	
Cancer	11		" bladder	2	
Casualties	8	2	" kidneys	4	2
Congestion of the brain		7	" lungs	8	10
" " lungs		2	" pericar'm	1	
Child birth	1		" periton'm	5	2
Cholera infantum		67	" s. & bowels	7	12
" morbus	4	1	" tonsils		1
Cirrhosis of the liver	2		Inanition		19
Consumption of the lungs	38	8	Marasmus		31
Convulsions	1	11	Old age	11	
Croup		3	Obstruction of the bowels	3	
Cyanosis		6	Paralysis	9	1
Drowned	1	2	Pyæmia		1
Debility	3		Purpura hemorrhagica		1
Diarrhœa	4	1	Septicæmia	1	1
Diphtheria		6	Sore mouth		2
Disease of the kidneys	1		Softening of the brain	1	
" " heart	20	6	Stricture of bowels	1	
" " spine	1	1	" " æsophagus	1	
Dysentery	6	6	Sunstroke	1	
Eczema		1	Teething		3
Epilepsy		1	Tumor	2	
Fatty degeneration of the heart	2		Ulceration of the stomach	1	
Fever, scarlet		2	Uræmia	1	
" typhoid	6	1	Whooping-cough		7
Gangrene	1		Total	196	241
Hernia	1	1			

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Medical Index.

A weekly list of the more important and practical articles appearing in the contemporary foreign and domestic medical journals.

Anilin als Antisepticum, Goltz. Med. Monatsschrift.
Acute rheumatism, Bell. The Lancet.
Acute intestinal obstruction, complicated with perforating ulcer of the duodenum, Piggott. *Ibid.*
Angular curvature, rapidly developing paraplegia, laminectomy, recovery, Lane. *Ibid.*
Anthrax treated successfully by hypodermic injection of mercuric perchloride, Casson. Brit. Med. Jour.
Antisepsie médicale et scarlatine, Hutmel et Deschamps. Le Bulletin Médicale.
Antipyretic treatment of typhoid fever, account of case treated by prolonged immersion in water, Barr. Prov. Med. Jour.
Anglo-American quackery, King. *Ibid.*
Acute poisoning from external use of tincture of iodine, Jackson. Med. Record.
Arizona as a health resort, Anderson. *Ibid.*
Artificial infant-feeding, method of, Fowler. *Ibid.*
Action of salol on the kidneys, Hesselbach. Practitioner.
Aprosexia in children, Shaw. *Ibid.*
Arsenite of copper, results of collective investigation, Aulde. Medical Mirror.
Academia medica di Roma, piloro-plastica di Heineke-Milaulicz per stenosi pilorica, ed ulcere stomacali. La Rif. Med.
Azione modificatrice del siero del sangue sui globuli rossi, Maragliano e Castellino. *Ibid.*
Attempt to perform hysterorrhaphy by stitching the retroflexed uterus to the abdominal wall, without opening the abdomen, Williams. Amer. Jour. of Obstetrics.
Appareil mobile à niveau d'eau fixe, Manget. Archives de Med. et de Pharm. Militaires.
Abscess of the breast, Wynian. The Med. Age.
Abdominal surgery during the year 1888–'89, Joubert. Indian Med. Gazette.
Association of several distinct species of comma-bacilli, with cases of cholera in Calcutta, Sur.-Maj. Cunningham. *Ibid.*
Acne indurata, Hillis. Med. Press.
Alveolar sarcoma of the leg, Norton. *Ibid.*
Antrum-disease, Bosworth. Boston Med. Surg. Jour.
Attempted suicide by hydrocyanic acid poisoning, Shively. Amer. Jour. Med. Sciences.
Appendicite et typhlite, Talamon. La Med. Moderne.
Abscess beneath the palmar fascia, Spiers. Cin. Lancet-Clinic.
Associated eye movements produced by uni. and bilat. cortical faradization of monkey's brain, Mott. British Med. Jour.
Aphasia, Hirschfelder. Pacific Med. Jour.
Abdominal surgery, Ellinwood. *Ibid.*
Antimony, hypodermically, for apoplexy, Bird. Med. Bulletin.
Acute peritonitis from gonorrhœa, Penrose. Med. News.
Anthrax, the disease of the Egyptian plague, Blanc. N. O. Med. and Surg. Jour.
Algunas observaciones sobre la determinacion de los cosos en que, en las heridas por annas de fuego, debe tontarse o no la estraccion del proyectil, Pacheco. Revista Medica.
Abuse of hospital and the lodge system, Barrett. Austral. M. J.
Addison's Disease, peculiar case of, Ohmann du Mesnil. Atl. Med. and Surg. Jour.
Brain surgery, contribution to, Frank. Amer. Jour. Med. Sc.
Beitrag zur Histologie der Hypophyse und bezüglich der Verhältnisse zwischen Hirnanhang und Schilddrüse, Pisenti u. Viola. Centralblatt.
Birth and death-rate of advanced civilized peoples compared with semi-barbarous, Greenley. Amer. Prac. and News.
Bleeding in pneumonia, Earley. Medical Bulletin.
Beobachtungen über einige Abweichungen im Verlaufe acuter Krankheiten in den Vereinigten Staaten Nordamerika's, Kronecker. Berl. Klin. Wochen.
Brandt remedial methods for pelvic affections, Taylor. *Ibid.*
Borderland, Rost. N. Y. Med. Jour.
Baumwollenfaden anstatt Seidenfaden bei bakteriologischen Versuchen, Braatz. Centralblatt.
Bladder-diseases among women, unusual forms of, Strong. Boston Med. and Surg. Jour.
Beitrag zur Kenntniss der tertiaer-syphilitischeu Affectionen des Beins, Buchler. Med. Monatsschrift.
Cerebral localization, illustrated by the effect of mental impression, Smith. Amer. Jour. Med. Sciences.
Clinical results of gastric faradization, Stockton. *Ibid.*
Carcinome de l'intestin grêle, jejuno-jejunostomie, Comte. Revue Médicale.
Constitutional treatment of diseases of skin, Curtis. Albany Med. Annals.
Cauterising condyloma with Plenckii's solution, Kaposi.
Continuous side-stich method for wounds of the intestine, Lewis. Jour. Amer. Med. Ass'n.
Group, Earley. *Ibid.*
Cerebral localization, Ferrier. The Lancet and Brit. Med. J.
Cæsarean section for osteo-malacic pelvis, McGowan. Lancet.
Compound fracture of skull, Willson. Brooklyn Med. Jour.
Cleanliness in eye surgery, Millikin. Amer. Jour. of Ophthal.
Cervical catarrh, Erwin. Cleveland Med. Gaz.
Contributo all' anatomia patologica degli occhi atrofici con speciale riguardo alla degenerazione jalina dell' epitelio pigmentato e ad una speciosa alterazione della lente cristallina, Sgrosso. La Rif. Med.
Contributo alla etiologia delle complicazioni deltifo, Patella.
Carcinoma of the duodenum, Montgomery. Occid. M. Times.
Chronic vesical catarrh, cured by rapid irrigation and forcible distention of the bladder, Mahe. *Ibid.*
Climate of Tarpon Springs, Florida, especially for diseases of the skin, Shoemaker. Med. Bulletin.
Cocaine as a general and local therapeutical agent, advantages and disadvantages of, Potter. West Med. and Surg. Rep.
Concussion and compression of the spinal cord. Carpenter. *Ib.*
Congreso medico Chileno, seccion de medicina interna, Maira. Revista Medica.
Carcinoma of the pancreas, Richmond. Buffalo Med. Surg. J.
Cæsarean section, successful, Macan. Med. Press.
Cystitis in women, Madden. *Ibid.*
Club-foot, especially varus and equinovarus, pathology and treatment of, Morton. Med. News.
Congenital malformation of the male-urethra, with illustration, Stein. Med. Record.
Chloralamid as a hypnotic in the treatment of mental diseases, Kinnear. *Ibid.*
Chlorosis, how shall it be treated? Bridgford. Med. Mirror.
Cystitis treated with salol, Abbot. Boston Med. Surg. Jour.
Compressing subclavian artery, and ascertaining whether the bladder is ruptured, Kern. Annals of Surgery.
Cæsarean operation with report of case, Dudley. Am. J. Obst.
Considérations sur le dosage de l'acidite des farines, Wagner. Arch. de Méd. et de Pharm. Militaires.
Contribution à l'étude du traitement de l'atrophie testiculaire d'origine ourlienne par les courants electriques, Olivier. *Ib.*
Castor oil, toxic effects of, Jones. Med. Press.
Contributo all' epidemiologia dell' influenza nelle provincia di Roma, sulle condizioni che modificano il potere antisettico di alcune sostanze. La Rif. Med.

Diseases of the brain in infants and children, Lee. Med. Press.
Diabetic coma, treated by intravenous injection of saline solution, death, Chadbourne. Boston Med. and Surg. Jour.
Distoma sinense, rare form of liver-fluke, Biggs. Am. J. M. Sc.
Dechirures du foie par traumatisme, Megevaud. Rev. Méd. de Louvain.
Deontologie médicale. *Ibid.*
Du traitement antiseptique des absces, Monod. La Méd. Mod.
Des principes qui regissent la prophylaxie des maladies infectieuses transmissables dans les ecoles, Layet. *Ibid.*
Die Naht der Spalten und Defekte des Gaumensegels ohne Durchschneidung d. Gaumenmuskeln, Wolff. Centralblatt.
Disease in brain of children, Lee. Med. Press.
Du foie dans le diabete, Fereol. Bulletin L'Acad. de Méd.
Danger in the use of jequirity, heretofore unmentioned, Mnrrell. Jour. Amer. Med. Ass'n.
Does removal of the diseased tubes and ovaries permanently cure the patient? Munde. Annals of Gynæc. and Pædr.
Ueber neuritische Lähmungen beim Diabetes mellitus, Brun. Berl. Klin. Wochenschrift.
Ueber einen Fall von Rhinoplastik mittelst eines ohne Umklappung herabgezogenen Hautknochenlappens, Wolff. *Ib.*
Ueber die Grundsätze der Diätetik der Krankheiten der Verdauungsorgane (Schluss), Boas. *Ibid.*
Ueber die Anwendung der Anilinfärbstoffe, Stilling. *Ibid.*
Ueber die klinische Verwendbarkeit der von Dr. Zuchlos angegebenen Einrissproben, Schick. Prager Med. Woch.
Ueber Manie, Ebing. Int. Klin. Rundschau.
Ueber Pathologie und Therapie des Typhus abdominalis, Nothnagel. *Ibid.*
Un cas probable d'anevrysme intracranien, Regis. Jour. de Med. de Bordeaux.
Value of Leiter incandescent lamp urethoscope in the diagnosis and treatment of chronic urethral discharges, Deaver. Med. News.
Vegetative aortic valvulitis which proved fatal by embolism, aneurism, and rupture of left profunda femoris artery, Duckworth. Brit. Med. Jour.

The Times and Register.

Vol. XXI, No. 5. NEW YORK AND PHILADELPHIA, AUGUST 2, 1890. Whole No. 621.

PAGE

ORIGINAL ARTICLES.

RECENT ADVANCE IN THE RADICAL TREATMENT OF HERNIA. By Nathan Jacobson, M.D. - - - - - - - - - - - - - - - - 97
MEDICINE: PAST AND PRESENT. By H. O. Jewett, M.D, Cortland, New York - - - 100
REPORT OF TWO CASES OF SEVERE VOMITING OF PREGNANCY. By E. W. Mitchell, M.D. Avondale, Cincinnati, Ohio - - - - 104
A CASE OF RUPTURE OF THE UTERUS AND VAGINA. By Dr. Jalko-Grintsevich - - - 106

THE POLYCLINIC.

PHILADELPHIA HOSPITAL:
Radical Cure for Hernia. *Laplace* - - - 108
Talipes Equinus. *Laplace* - - - - - - 108

EDITORIALS.

ARSENICAL PERIPHERAL NEURITIS - - - 109

ANNOTATIONS.

Analyses of Quinine Pills - - - - - - - 109
Higher Medical Education - - - - - - - 109

BOOK REVIEWS.

Diseases of the Rectum and Anus. *Kelsey* - 110
Archives of Dermatology and Syphilis. *Doutrelepont* - - - - - - - - - - - - - 110
PAMPHLETS - - - - - - - - - - - 110

PAGE

THE MEDICAL DIGEST.

Facial Epithelioma. *Luciani* - - - - - 110
Deafness from Syphilitic Disease. *Risk* - - 110
Exophthalmic Goitre. *Hæberlin* - - - - 110
Abortion. *Owen* - - - - - - - - - - 110
Severe Hemorrhages. *Heer* - - - - - - 110
Chloralamid for Insomnia. *Miller* - - - - 110
Cataract Cured with Succus Cinerariæ Maritimæ. *Notes on New Remedies* - - - - - 110
Antipyrine in Erysipelas. *Favre* - - - - 110
Concussion of the Eyeball *Brouner* - - - 110
Late Child-bearing. *Parsons* - - - - - - 111
Sulphonal a Hypnotic for Children. *Wile* - 111
Varicose Ulcers. *Capes* - - - - - - - - 111
Sublimate Pellets. *Bond* - - - - - - - 111
Tropical Diarrhœa. *Neve* - - - - - - - 111
Aristol in Varicose Ulcer. *Eichhoff* - - - 111
Hydronaphthol in Typhoid Fever, etc. *Clarke* - - - - - - - - - - - - - - 111
Hypnotism and the Church. *Lemoigne* - - 111
Trephining for Traumatic Epilepsy. *Ricketts* - - - - - - - - - - - - - - 111
Ethereal Tinctures. *Sawyer* - - - - - - 111
How to Boil an Egg. *Medical World* - - - 111
Recipe for an Infant's Food. *Fowler* - - - 111
Sulphonal. *Field* - - - - - - - - - - 111
Catheter Fever. *Harrison* - - - - - - - 112

PAGE

Rhubarb as a Cause of Hæmaturia. *Hosp. Gazette* - - - - - - - - - - - - - - 112
Bacteriology of Typhoid Suppurations. *Orloff* - - - - - - - - - - - - - - - 112
Gargling. *Mackenzie* - - - - - - - - - 112
Cooling Salves. *Unna* - - - - - - - - - 112
Treatment of Obstructive Dysmenorrhœa. *Madden* - - - - - - - - - - - - - - 113
Summer Disturbances of Children. *Love* - 113
The Heat and Its Effects. *Lancet-Clinic* - - 114
FRENCH NOTES. *Roussel* - - - - - - - - 114
The Use of Ice in the Sweats of Phthisis. *Rosenbach* - - - - - - - - - - - - - 114
The Administration of the Iodides to Scrofulous Children. *Le Bull. Méd.* - - 114
Mixture for Dental Caries and its Attending Pains. *Le Bull. Méd.* - - - - - - - 114
Mixture for Earache - - - - - - - - - 115
The Use of Menthol in Coryza. *Jour. de Méd.* - - - - - - - - - - - - - - - 115
The Nutritive Value of Boiled Milk. *Vassilieff* - - - - - - - - - - - - - - - 115
MEDICAL NEWS AND MISCELLANY, 115
ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - - - 119
MEDICAL INDEX - - - - - - - - - - 120
NOTES AND ITEMS - - - - - - - iv, xiv

Original Articles.

RECENT ADVANCE IN THE RADICAL TREATMENT OF HERNIA[1].

BY NATHAN JACOBSON, M.D.,
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THE complete revolution in surgical procedures, occasioned by the appreciation of antiseptic and aseptic principles, has nowhere been more thoroughly evident than in the radical treatment of hernia.

In the American edition of "Holmes' System of Surgery," published as late as 1881, the word "radical" is, apparently with some justice, surrounded by quotation-marks. For there we find a quotation from Otto Weber, at one time the clinical assistant of Wutzer, the author of a very popular operation for the radical cure of hernia—which in substance is that he had never seen any of the so-called cured cases radically cured; and another, from Mr. Lawrence, to the effect that the radical operations for hernia afforded no prospect of recovery, though undertaken at the hazard of life, and that the patient after their performance, as before, was ever obliged to wear a truss.

Elsewhere I find the statement that Rothmund, in 1852, reported that of one hundred and eighty-one cases, treated by invagination, three had been permanently cured. The various operative measures, which had then been performed, and which formed the basis for these conclusions, were: invagination of the hernial sac by various methods; cauterization of the orifice and the neck of the sac; ligature applied around the neck of the sac; incision of the sac and subsequent healing of the wound by granulation; detaching the sac from its connections, and returning it into the abdomen; excision, suture and scarification of the sac; immediate and forcible compression of the sac by bandage and truss, and the use of stimulating injections, especially tincture of iodine.

Mr. Burkett, no doubt, expressed the best surgical thought of his day when he wrote the article referred to and spoke so disparagingly of the measure then in use for the radical cure of hernia.

Since 1880, however, there has been an universal effort on the part of surgeons in various countries, to devise an operation which should be alike free from danger to life and successful in being, in the fullest sense, a radical cure for hernia.

I assume that to be radically cured means that the patient should not only be relieved of the hernial protrusion, but that the parts should be so fully restored to their integrity that the further use of a truss is unnecessary.

While at times during the period mentioned, descriptions of various lines of operative procedure have found their way into medical journals, it has been only since the beginning of last year that various operators have published the results of their experience.

In passing upon the merits of surgical work that looks to the permanent relief of an affection like hernia, the true criterion must necessarily be the test of time.

How great a period must elapse before we can feel certain that the danger of recurrence of hernia has passed, is a matter under dispute.

Anderegg found that seventy-five per cent. of the recurrences occurred during the first year. Banks believes that at the end of one year one can speak definitely of the result. This period may not seem sufficiently long to many, yet I believe these state-

[1] Read at the meeting of the Third District Branch of the New York State Medical Association, at Syracuse, N. Y. June 19, 1890.

ments agree with the findings of those who have had opportunity for large observation. But whatever may be the views of individual physicians, as to the results to be obtained by the various methods of operation, it must be conceded by all that almost wonderful advance has been made under the modern methods of operation.

Foremost of all is the fact, which stands out in bold relief in the statistics of all countries, that the operations for the radical cure of hernia are no longer to be regarded as dangerous to life. In Schede's list[1] of fifty operations in free herniæ, one death is reported; and, as this patient died twenty-three days after operation, and five days after complete cicatrization of the wound, and as the post-mortem examination showed the death to have been caused by fatty degeneration of the heart, I believe it only just to say that there was not a single death attributable to the operation.

Svensson and Erdmann, of Stockholm, published in 1887 a list of one hundred and sixteen cases, without a single death; while Marcy, in his little work on "The Radical Cure of Hernia," published last year, writes that he will "warrant, in competent hands, a mortality not to exceed one per cent.," and, in a paper read by him last year, at Newport, quotes seven hundred and seventy-nine cases recently operated, with but five deaths, and these not referable to the operation.

This great step forward has made the next advance possible. The list of cases suitable for radical operations has been greatly extended.

At the meeting of the American Surgical Association, in May of last year, the almost unanimous expression of the surgeons present was that no operation for the relief of *strangulated* hernia was complete, except it ended with steps taken for its radical cure.

This is entirely in accord with the experience of foreign operators. Naturally, we look for a greater death-rate than when a radical operation is done for a free hernia. The condition of the patient, and particularly the condition of the intestine and the sac, seriously affect the prognosis.

And yet, even in this class of cases, the death-rate by no means approximates that which formerly attended herniotomy, when performed for the relief of a similar condition. For example, Bryant, in his "Practice of Surgery," states, where the sac was opened, at Guy's Hospital, the death rate was fifty per cent. in femoral, and sixty per cent. in inguinal hernia.

In one hundred and fifteen cases of strangulated hernia, operated upon by Schede for radical cure, eleven, or nine and one half per cent., died. Of these eleven, in only six was death at all directly connected with the operation. Of two, operated upon for inguinal hernia, death occurred, in the one case ten days, in the other eight weeks after complete cicatrization, both patients being old, the one sixty-one, the other eighty years of age. Of the three, dying after the radical operation following strangulated femoral hernia, one, sixty eight years old, died of exhaustion; one, sixty-nine years, of pneumonia; and the last of gastric hemorrhage from a cancerous stomach, two weeks after recovery from the hernial operation. The actual death rate, therefore, is but little more than five per cent.

This, surely, is a remarkable record. But, right here, the lesson which all this teaches cannot be too strongly emphasized.

[1] Zur Radikaloperation der Unterleibsbrüche. Von Friedrich Wolter. Leipzig, 1890.

It must be apparent that herniotomy for the relief of strangulated hernia, whether done alone or in conjunction with a radical measure, performed with the precautions that should surround all operations today, is, in itself, an innocent procedure. What renders its termination unfortunate is much more sure to be the mortifying or mortified condition of the sac contents, than any danger which attaches to the operation.

Taxis, long-continued or violent; unnecessary delay, either due to the timidity of the medical attendant, or occasioned by the use of measures which utterly fail of their purpose, are greater sources of danger to the patient, than can any operative measure possibly be, in the hands of the intelligent surgeon.

The selection of cases of *reducible* herniæ, suitable for operation, is one of some difficulty. The condition of the patient is to be considered. If the person be cachectic, be afflicted with phthisis or other serious disease, if he be advanced in years, it certainly would not be wise to operate. I had occasion, recently, to refuse an operation to a man who, because of long-continued suppuration, was suffering from amyloid disease of the kidneys and other organs.

If the hernia be thoroughly held in place by a truss, a radical operation is not indicated: although many operators prefer to except from this rule young children. Rothmund believes that if the wearing of a truss has not effected a cure in a child when it has reached its seventh year, it will not later. Tiffany, of Baltimore, is of the opinion that congenital herniæ should be operated if it is probable that the child will later in life be obliged to do manual labor. And this seems to be the view of many surgeons, abroad as well as in our own country.

But where the truss fails to retain the hernia and the individual is incapacitated for work, the radical operation is demanded.

Permit me now, as briefly as possible, to refer to the methods of operation to-day regarded with most favor.

With the advent of a clearer conception of what could be accomplished with the advanced methods, there came new principles of operative procedure.

Instead of the cautery and caustics, the complicated instruments and invagination, there came the knife; instead of subcutaneous operation, there was free exposure of the canal and the rings; instead of the effort to excite an intense inflammation at the hernial orifice to favor the development of a cicatricial plug, came to the minds of some the desire to secure union by first intention.

And yet, as to the latter proposition, the profession is still divided. There is the one class of operators which seeks the restoration of the parts to their normal condition by primary union, and the other which still believes that there is greater strength in the cicatrix, and who, therefore, after disposing of the hernial tumor, seek to delay repair, that union may occur by granulation. This latter is called the open wound method.

It will be impossible at this time to refer to every method of procedure that has been suggested for the disposition of the hernial tumor and the management of the canal and rings.

The details can best be summarized under several heads:

1. The disposition of the sac.
2. The treatment of its neck.
3. Splitting of the inguinal canal.
4. The suturing of the ring.
5. The closure of the wound.

(1) *The Disposition of the Sac.*—McBurney, in his paper before the New York Academy of Medicine, February 21, 1889, asserts that all concede that removal of the hernial sac is indispensable in securing the cure of a hernia.

While there is no doubt that most operators endorse this statement, this broad assertion is unwarranted. Macewen, the author of a very extensively-used operation, passes a suture longitudinally through the sac and out of the wound an inch above the internal ring, thus folding the sac up and drawing it into the abdominal cavity. By this means he believes he creates a bulwark at the abdominal surface of the internal ring, against which, to use his poetic thought, the intestinal waves may dash but be beaten back.

Schede does not believe in the universal application of this rule, not regarding it of prime importance in securing a radical cure. Umbilical hernia, he says, is best suited for sac extirpation, next femoral, and least of all inguinal. He further states that where the sac is very adherent, and especially when it is but little changed in character, union by first intention is not interfered with by allowing it to remain.

In operating upon congenital herniæ some American surgeons do not open the sac, but, placing two ligatures about it—one high up—exsect the intervening portion.

There is no doubt, however, that the extirpation of the sac greatly simplifies repair, lessens the period of recovery, and favors union without wound complications.

(2) *The Treatment of Its Neck.*—Czerny, in 1877, was the first to recommend ligation of the neck of the sac. This step is to precede the sac extirpation. For the purpose of its ligation the sac is to be opened, the finger of the operator carried well down to the internal ring, while tension is being made at the fundus. This, of course, can only be done if the sac be empty. Should there be intestine present, it is to be returned into the abdomen. If there be omentum, it is to be removed, after a ligature or suture has been applied at a suitable point, and the stump carried into the abdominal cavity. The sac now being empty, traction made at the fundus, a ligature is thrown about its neck, as high up as possible, while the operator's index finger, in the sac cavity, prevents the extrusion of the abdominal contents.

Nussbaum in Germany, and Marcy in this country, prefer stitching the neck to its ligation. The latter uses a curved needle, fixed in a handle, with an eye at its extremity, with which he makes the shoemaker's stitch, not only in closing the neck, but also in the subsequent steps of the operation.

But, whether closed by ligature or suture, the result is that a smooth peritoneal surface now marks the inner aspect of the internal ring. The particular point gained by this is that no dimpling into the internal ring exists into which intestine may be projected and favor the recurrence of hernia. Other methods of dealing with the neck of the sac are in use, especially that of Ball, who twists the sac upon itself at its neck several times, securing its quite firm occlusion, and then fastens it to the internal ring with sutures.

This plan, however, is considered too blind to be entirely free from danger.

(3) *Splitting of the Inguinal Canal.*—Some operators have contented themselves with ligaturing the sac at the external ring, drawing it down as well as possible. This procedure overlooks a very important anatomical consideration, namely, that it leaves patent the internal ring and inguinal canal, allowing the gut to pass into, if not through, the latter; and then we have a bubonocele.

Risel was the first to suggest splitting the inguinal canal, exposing the internal ring, and removing the sac at the point of its projection from the peritoneum.

This plan McBurney and Marcy have both adopted. Schede objects to it, saying that it is almost exceptionally bad and increases the danger of peritonitis. But the operators mentioned have found no reason for this fear.

It certainly gives greater exposure of the internal ring, better oportunity for freeing adhesions and separating the neck, and, as I believe, after operating in this manner, is of tremendous advantage to the operator.

(4) *The Suturing of the Ring.*—Concerning this step there has been no end of dispute. It has its advocates and opponents. McBurney argues that the ring is a permanently dilated opening in an inelastic fascia, and, therefore, the walls are very unyielding and nothing can be gained by this procedure. Anderegg and Lucas-Championiere take a similar view.

But whatever may be the opinion, based upon theory alone, of any operator, the fact is that all observers, who have followed their cases, have found that there is a very decided narrowing of the ring after its suturing. Its complete closure is assuredly not desired, for that would mean compression of the cord or round ligament. But the necessary reduction in size is obtained.

A variety of plans are followed. Macewen, with the needle that bears his name, carries a loop through one pillar, and fastens the threads together in the opposite one, carrying them through the corresponding points. Czerny prefers the purse string suture, with which he draws the walls of the rings together. Marcy, as has been said, uses the shoemaker's stitch. Others use an interrupted suture; especially is this the case when silver is employed.

Our own Gross was the first to attempt this step. This was thirty years ago. He used silver wire, and had a good result in two cases.

Much discussion has also occurred as to the material best suited for suturing. In 1874, Steele employed catgut. Czerny found this to be inefficient and substituted carbolized silk.

Perhaps the first to use the buried animal suture, in the radical cure of hernia, was Marcy, of Boston. In his hands its use began in 1870, and he has seen, as he personally informs me, no reason as yet to abandon it. His preference is for the tendon taken from the tail of the kangaroo.

In 1884, Banks asserted that his choice was for silver wire, and, since 1887, Schede has used only silver in all the radical operations he has performed at Hamburg, for closing the ring. This he buries, and finds that it remains permanently in place and undergoes no change.

Lastly, the Closure of the Wound.—Here we are confronted by the claims of those who insist that cicatricial tissue gives firmer support than can possibly be obtained by primary union.

McBurney, after he has laid open the inguinal canal, removed the sac and returned the stump into the abdomen, adapts provisional sutures to each side of the wound, carried through the walls and takes particular pains to roll the skin inward, that primary union shall not be possible. However, even he does not consider it wise to have too much cicatricial tissue, but applies tension sutures to so approximate the walls of the wound that the space between them shall be reduced to from one-fifth to one-quarter of

an inch. This done, iodoform is thoroughly dusted into and the wound packed with iodoform gauze most carefully; to protect the wound from the entrance of urine or feces, especially in children, rubber tissue is used as a protective dressing, or even a plaster of Paris bandage, while the catheter is employed for several days. But here also, prohibitory measures do not always prohibit.

The dressings are changed every five or six days, and as many weeks are required for the closure of the wound by granulation.

This plan of treatment, judging from the discussion that followed the reading of his paper at the Academy of Medicine, and that which took place at the meeting of the American Surgical Association last year, seems to be the one most generally pursued by American surgeons.

The open wound method is quite favorably regarded abroad also, especially in England.

As strong supporters of the plan which aims at primary union, we have Marcy, in this country, and many German surgeons. The former uses the kangaroo tendon also for the closure of the wound, accomplishing it with successive rows of continuous suturing, closing every recess with the shoemaker's stitch, until he reaches the surface. Then he employs a blind stitch, which is a continuous suture, including all but the superficial layer of the skin. When his operation is completed, no suture therefore is in sight, and the line of incision appears to be but little else than a scratch; of course, no drainage is required. The only wound dressing that follows is a coating of iodoform collodion.

Küster, too, recommends the continuous suture for closing; but Schede prefers an interrupted suture of No. 1 catgut. His objection, and my experience has taught me its validity, is that the tension of a continuous suture is apt to endanger the circulation and thus interfere with primary union.

As to the comparative value of these two methods, perhaps time enough has not elapsed to decide.

Yet it is most remarkable how wonderfully well Schede and Marcy agree in the statement of the results of their methods. For while the latter says in his paper before the American Medical Association last year that "of those whose histories I have a knowledge, fully ninety per cent. are permanently cured, and in no instance do I advise the subsequent wearing of a truss." Schede's statistics show that of the one hundred and sixty-five operated, recurrence occurred in but fifteen.

It certainly is the best possible endorsement of an operation to have two operators, as widely separated as these, differing in some details, but striving for the same end, working independently of each other, as I know to be the case here, reach conclusions so thoroughly alike.

Whether the open wound treatment will make as good a showing, time alone can tell. That it will do better we all may reasonably doubt.

There are many other points that might be presented. But as my purpose was simply to call the attention of the association to the great advance that has recently been made in treating an affliction so universal as hernia, the safety with which the operations can be performed, and the assurance of radical cure they offer, I shall not detain you longer.

THE Siberian cattle plague is ravaging the province of Riazan, in Russia; a number of peasants, also, have contracted the disease, but no fatal results, so far, have been reported.

MEDICINE: PAST AND PRESENT.[1]

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THE fundamental principles of a positive science are unchangeable—as truth is the same yesterday, to-day, and forever.

Medicine is not a positive science; and it would be gratifying to believe that the changes observed in the theory and practice of our art were only the changes incident to progress and improvement. But, when we contrast the heroic antiphlogistic treatment of disease which was in vogue three-quarters of a century ago with the tonic, stimulating, sedative, anodyne, and, I may say, semi-expectant practice of to day, it naturally suggests one of the following conclusions:

1. That those earlier practitioners, whom we are proud to recognize as the great lights in medicine, and than whom no more devoted and discriminating minds ever delved in any field of science, were wholly at fault in their methods of investigating morbid phenomena, their interpretation of symptoms, their theories of the *modus operandi* of remedial agents, and their estimation of the tolerance of the vital powers; as well as in their observation and record of the results of their practice.

Or, 2. That our race has, during the last hundred years, greatly deteriorated in constitutional vigor and power of endurance; thus diminishing its tolerance of depressing influences, either in the form of disease or of active remedial measures.

Or, 3d. That nearly or quite all of the diseases of our country, especially our acute inflammatory and febrile affections, while exhibiting the same general aspect, the same semeiological phenomena, have, nevertheless, passed from a sthenic to an asthenic type, with an increased tendency to early prostration and collapse.

Now, are these, or is either one of these, inferences actually tenable?

Without going back to remote antiquity and referring to the great—who were great only by comparison with the uneducated masses—shall we repudiate or ignore the experience, the observation, and the doctrines of such men as Abernethy, John Hunter, Sir Astley Cooper, the Bells, Rush and Physick, names which have come down to us, and will go down the ages surrounded with a halo of glory for their grand achievements in medicine and surgery?

> "Shall we call our fathers fools, so wise we grow?
> No doubt our wiser sons will call us so."

It should not be forgotten that while these men were without the wonderful facilities which we enjoy, they were devoted students and critical observers of nature. They resorted not to text-books or medical literature, but to the fountains of nature for their facts. Their conclusions were drawn from that most infallible source of all positive knowledg: personal experience.

They had not utilized the microscope or the clinical thermometer, and though they had some crude ideas of the septic origin of disease, they had never hunted the bacteria and the various tribes of microorganisms which have revealed themselves to modern pathologists. Hence they had no occasion to discuss antiseptics, germicides and parasiticides.

It is doubtful if they had ever pronounced many of the classical and technical terms of our modern vocabulary, designating the results of recent investigations in histology, etiology, and pathology. But,

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[1] Read before the New York State Medical Association (Third Branch), at Syracuse, June 19, 1890.

if they were deficient in the finer accomplishments of a scientific practitioner of to-day, their native tact and large experience rendered them expert in the main essentials of successful practice. They were at least familiar with the signs of life and health, and could readily detect the signals of disease and impending dissolution.

They could determine with a great degree of certainty whether their patients were destined to live or die, to recover completely or remain confirmed invalids.

Their materia medica was limited but efficient, their therapeutics comparatively circumscribed. Sir Astley Cooper once said, "Give me the lancet, antimony, calomel, opium, and bark, and I will make them adequate to all the ends of practice." These were their sheet-anchors, and they knew well when and how to cast them.

In these they had a direct antiphlogistic, a narcotic, a nervine, a diaphoretic, an emetic, a cathartic, an alterative, and a tonic.

Opium would allay pain, bringing comfort and solace, and sleep to the sufferer.

Antimony would excite the functions of the skin, equalize the circulation of the blood, relieve internal congestion, thereby banishing the dyspnœa of croup and the oppression of pneumonia.

Calomel would flush the sewers of the alimentary system, and "shake the gall-bladder with a vengeance."

Timely, bold, efficient venesection would dispel the pangs of pleurisy, the contortions of eclampsia, the maniacal raving of phrenitis, and the stertor of apoplexy.

Whatever may be said of the crudities of "ye olden time practice," our fathers bearded the lion in his den, grappled disease by the forelock and throttled it. Their motto was "*pugnatum est arte medendi*," illustrated by a figure of the goddess of medicine armed with a baton, belaboring the head of the serpent.

If they were at times somewhat hyperheroic in the use of depletives, it is a question whether they could not honestly report as large a percentage of cures as we can of recoveries under our more temporizing treatment.

Doubtless there were charlatans then as now, who pursued a routine course with active remedies, doing much more mischief than they could have done with our modern placebos in the form of sugar pellets and infinitesimal dilutions. They were the blind man armed with a club. If he hit disease, it received a terrible set back, and possibly passed for a marvelous cure; but if he hit the patient, it was a visitation of God.

But such have no place in history save as miserable excrescences upon the "*corpus medicale*," just such as we see at the present time.

In reference to the second inference, recorded facts do not by any means justify the conclusion, that, under our advanced civilization, the human race has in any measure deteriorated in vital force and power of endurance during the last hundred years.

On the other hand it is shown by well authenticated statistics, that throughout nearly all of the civilized and enlightened portions of the globe, the longevity of man has progressively increased.

A better general understanding of the laws of life and health; better sanitary regulation; better ventilation of dwellings; better food; better clothing; the lessening of arduous hand labor by the application of machinery to the purposes of agriculture and mechanics; a greater number of hours devoted to rest and recreation, thus abating the severity of toil, and relieving the monotony of existence among the laboring classes.

All these things have tended to prolong the activity of youth and the vigor of manhood, so that, despite all the evils of luxury, and the multiplied casualties from the use of steam in manufactories and upon railroads, and the application of subtle chemicals to the arts, the average duration of human life now exceeds that of preceding generations.

It may also be observed that, making all due allowance for the benign influence of anæsthetics and antiseptics in avoiding the shocks of pain and averting untoward sequelæ, men, women, and children sustain severe injuries and dangerous mutilations, by accidents and by surgical operations, recovering therefrom with greater certainty and celerity than at any former age of the world.

I believe that the sound, healthy man of the present generation will endure more, and accomplish more in a life-time than could his progenitors of one or two hundred years ago.

As to the third inference alluded to in the beginning of my paper.

There is some evidence that our local inflammatory and febrile affections have, within the last century, assumed more of a typhoid and asthenic type, with a corresponding intolerance of active antiphlogistic treatment; a change due possibly to our artificial habits of life, to climatic changes incident to the transformation of a vast wilderness into cultivated fields, or more probably to some combination of causes not well understood.

But it must not be forgotten that Asiatic cholera, yellow fever, typhus and typhoid fever, *morbus-strangularius* and cerebro-spinal meningitis, or "spotted fever," displaying all their wonted tendency to early prostration and collapse, prevailed in many parts of the world, long before the days of Rush and his distinguished contemporaries.

Even these diseases were treated with reputed success by sanguineous depletion.

It is recorded of the celebrated Dr. Dover, physician and buccaneer, that, just before taking by storm the two cities of Guayaquil, the plague broke out among his forces, and in less than forty-eight hours he had in his several ships one hundred and eighty men down with the disease. He ordered his surgeon to go round with the whole number, opening the veins in both arms, with the command to leave them bleeding till all were blooded, and then go round in the same order and tie them up. Thus they lay bleeding and fainting so long that he says, "I could not conceive that they lost less than one hundred ounces each man." Notwithstanding he had one hundred and eighty odd men down with that most fatal malady, and though some of the poor fellows bled nearly, or quite to death, he lost only seven or eight in all, and he "made no question that, with ordinary medical treatment, considering the heat of the climate, and the exposure to which they were subjected, he would have lost nearly every man."

Such was the testimony of one of the shrewdest practitioners of his time.

Dr. Dover was a bold man, but it might require a bolder than he to enforce that sort of treatment now in this latter part of the nineteenth century.

Nevertheless, if such practice were sound and successful one hundred years ago, it should be equally successful under similar circumstances at the present day. And I believe that a large percentage of our acute inflammatory affections will not only bear, but be benefited by, a liberal use of the lancet.

Prejudices in religion and medicine are always potent and far reaching; and fashion rules about as arbitrarily in medicine as in millinery.

The members of our profession throughout the country, in yielding to the prejudice of society, and to the beck of fashion, often against their own convictions, have nearly abandoned and consigned to the tomb of the lost arts, one of the most invaluable and efficient life-saving agents we have at command. In acute pleurisy, in the early stages of pneumonia, in puerperal eclampsia, and in many cases of cerebral congestion, no other remedy will begin to compare with prompt, well-timed venesection. In fact, I have never seen such cases recover as happily and as completely under any other plan of treatment.

Do we fear dangerous prostration from the loss of a few ounces of blood, in the face of a disease which we know, if unchecked by some vigorous measures, will certainly overwhelm the powers of life?

In our obstetrical practice we have witnessed pretty copious *post-partum* hemorrhage without much alarm.

We have seen a half-vesselful of the vital fluid from the parturient woman without a sign of syncopea, and this, too, after the prostrating effects of a protracted labor. And, moreover, we have seen that patient recover better and more rapidly than many others who have flowed less.

It is a besetting sin of physicians that they mingle and confound speculation with facts, making facts subordinate to speculation.

A rigid adherence to facts will convince us that the apprehensions of dangerous prostration from judicious venesection were never born of experience and observation.

Dr. Rush used to assert that an "apparent prostration, like that observed in syncope, was often mistaken for extreme debility; and that the cure of a malignant fever was always most complete, and the convalescence most rapid after blood had been drawn till the face became, and remained, very pale."

Those of us who have practiced as we were taught many years ago, and who have witnessed the marvelous effects of a single bleeding, as an abortive measure in acute inflammation, and have observed the rapid convalescence which followed, without even the aid of adjuvants, may be pardoned for the faith that is in us.

I can remember when we did not expect to lose a case of pneumonia after early and efficient bleeding, and it was almost an accepted axiom that a case of double pneumonia, which would not bear bleeding, would be fatal in any event.

In those days we bled in pleurisy, and our patients recovered perfectly in a few days. I venture to say that not one case of pleuritic abscess or effusion occurred where there are twenty now. The trocar was not called into requisition to help nature repair the mischief which the lancet could have averted.

But human judgment is fallible; statistics are not always reliable, and coincidence are sometimes mistaken for cause and effect. "*The post hoc for the propter hoc.*"

If the practice of medicine has at times been unnecessarily, even harmfully energetic, it is no reason why we should switch off upon the unballasted sidetrack of homœopathy or expectancy, resolving to do no harm by doing nothing at all.

It is no fault of an important principle that it has been misapplied, or of a useful remedy that it is potent for evil as well as for good.

If we were to discard every article which is capable of mischief in ignorant and unskillful hands, we should effectually emasculate the materia medica and cripple our therapeutics.

But I am somewhat of an optimist, believing that despite the conflicting theories which have always tended to handicap and retard the advance of science, the true eclecticism of our art will yet sift the wheat from the chaff, bringing truth and heresy, fact and fiction, which have appeared like the confused colors in a kaleidoscope, into order and arrangement, making them contribute to our stock of useful knowledge.

Contrary to the axiom of "nothing from nothing," and in accordance with the trite simile of the bee gathering sweets from unsavory and malodorous flowers, we have already learned something of value from the vagaries and absurdities of Perkinism and homœopathy. The latter a system which, by a rigid practical adherence to its fundamental dogmas, should have perished in a twelve month, and which now only subsists upon a name and what it has pilfered from the practice of rational medicine.

But homœopathy has at least demonstrated the marvelous power of the imagination over physical infirmities, and the spontaneous cure of disease. We have learned that a great number of maladies, not heretofore so regarded, are in fact self limited, and to a great extent self-curative—that perhaps three-fourths of those which we are called to treat, would, with careful nursing, proper hygienic regulations, and a removal of all offending causes, recover without the aid of the materia medica. How much valuable time may be saved, and how much danger and suffering averted, by timely and judicious medication, is another question. As students of nature, we may congratulate ourselves upon our good fortune in having been born when we were, though I would like to have made my advent a little later in the century.

We live in an age when all the systems of nature are disclosing their mysteries, and all the avenues of mind are open to receive them. When everything that contributes to the comfort and welfare of man—everything which makes modern civilization what it is—is rapidly advancing, and when medicine is, in the language of sportsmen, "neck and neck in the race" with the sister sciences.

In an age when we make the sunbeams paint our pictures, when we travel, dispatch, converse, illuminate our streets and dwellings, besides transmitting the souls of our culprits to "Kingdom Come," by lightning, surely the limits of the possible are undefined and undefinable.

As physicians, with a vast wealth of professional knowledge, born of the centuries, for our birthright and our starting point; with multiplied facilities for investigating the laws of life; with greatly improved methods of detecting the physical signs of disease; with all that the thermometer, the microscope, the laryngoscope, the ophthalmoscope, the test-glass, and a hundred other cunning contrivances have accomplished in the hands of enthusiastic laborers in the fields of histology and pathology; with all that chemistry and pharmacy have effected in supplying us with a vastly improved and amplified materia medica, we should, we ought to practice better and more successfully than did those who lived fifty or a hundred years ago; just as the steam engine and the telegraph are expected to outstrip the old-fashioned mail coach and common vehicle of our fathers.

But with all these superior advantages, whatever we may have achieved in the way of mitigating suffering and promoting euthanasia, have we made corresponding progress in the art of curing disease, which is the crowning glory of our noble calling?

We have certainly accumulated much valuable material to be utilized by those who shall come after us, just as the miner furnishes nuggets to be coined and fitted for circulation by the artisan of the mint.

It is, however, a pertinent question whether all our seeming advancement is in the direct line of improvement.

Is the plethora of our medical literature, an ambition on the part of correspondents to appear in print, prompting to the publication of reports booming fresh therapeutical means and measures; the promulgation of callow and unwinnowed theories, based upon a limited observation of supposed results? Is the multiplication of technical phrases and terms for the designation of newly-discovered substances and tissues, and the expression of varying phases and shades of vital and morbid processes, any aid to science? Or do they tend to confuse the mind of the student, and tax the memory of the practitioner, to the exclusion of important facts and principles, as it were, "tithing *mint* and *anise* and *cummin*, and all manner of herbs, and omitting the weightier matters of the law?"

Is the rapid expansion of our pharmacopœia an unmixed good? The multiplicity of advertising circulars, proclaiming the superior virtues of new preparations, which come to us unsolicited through the mails, to litter our tables and fill our waste baskets, are they any profit or convenience to the busy practitioner?

It is in accord with the progressive spirit of the times that many of the crude and bulky articles which once filled the shelves and freighted the saddle-bags of the doctor—the powders, boluses and decoctions, which were so repulsive to the senses of the valetudinarian, should give place to the more delicate and refined preparation of modern pharmacy.

But life is too short, and too precious, to experiment with all the multitude of extracts, elixirs, syrups and alkaloids, the protean forms of pharmaceutical compounds and formulas so pertinaciously forced upon our attention through the enterprise of manufacturing chemists.

And besides, do not these tend to foster a pernicious system of polypharmacy, muddling and embarrassing our appreciation of the specific effects of individual remedies? Do they not encourage a lazy habit of adopting the diagnoses and prescriptions so conveniently furnished us by the dealers in drugs? "The practice of medicine made easy," as it were, thus shirking the wholesome mental discipline and the noble responsibility of thinking for ourselves?

Modern researches in medicine have extended in so many different directions, embracing so wide a scope, that no ordinary mind can command a thorough knowledge of the science in its totality. Hence the necessity for a division of labor, in order that an individual may select a branch best adapted to his taste and ability, and by devoting to it his entire energies, attain a degree of perfection, which can never be reached by the general practitioner, who must earn his bread by a mixed practice in the country.

The operating surgeon, the oculist, and the gynecologist, if they have chosen well their parts, by constant practice therein should and do acquire a degree of skill and dexterity far surpassing that of the ordinary physician.

We owe much to the labors of the chemist, the microscopist and the pathologist in developing their respective branches.

The special study of mental diseases has been productive of incalculable good. A better acquaintance with the laws of mind and with the intricate causes which conspire to produce and perpetuate these fearful maladies, has excited interest and awakened sympathy in the hearts of the public, thereby banishing the iron bars, and bolts, and chains, and collars, and cribs, and other barbarous means of physical restraint, and introducing more rational and humane methods of managing the insane and the idiotic. Philanthropic societies have espoused the cause of these unfortunates, learned men have given their attention to the subject, and specialists in this department have become sufficiently expert to mystify courts and confound jurors—and if confusion of evidence is the criminal's hope, the assassin, who pleads insanity as a defence, is surely not without a well grounded hope.

When I speak of specialists as a necessity I refer to the educated class, who are good general practitioners, and who are sufficiently learned to comprehend the relations of morbid phenomena, the reflex action and remote sympathies which influence nearly all local affections; not including those who view the world through a pin hole, and can see nothing outside the narrow vista which centers upon their one idea.

If a specialist be a charlatan he is likely to be the veriest of very charlatans. The chiropodist who ascribes a cataract in the eye to an ingrowing toe-nail; the neurologist who can trace the cause of chorea, locomotor ataxy, epilepsy, and the whole class of neuroses to a trifling ocular deviation—and worst of all, that professional and social pest who advertises for the treatment of female complaints, exploring the vaginas of all his patients, from the age of eight to eighty, in search of displaced uteri and ulceration of the cervix, which, by the way, he always finds; these moral (or immoral) plagues have become too common and well known to require extended comment.

Advancement in surgery has been more marked and positive.

More than seventy years ago Sir Astley Cooper performed the boldest operations that had ever been attempted, and was afterwards knighted for removing a harmless wen from the scalp of George the Fourth. It was the magnitude of the personage, not the operation, which secured him the distinction. John Bell has been styled the great fountain of surgical knowledge, and it is asserted that time has added little of importance to what he taught. He instituted what may be called modern treatment of wounds and traumatic aneurisms, suggesting the use of antiseptics to avoid pyemia, using the word antiseptic as it is used at the present time.

Those men were far in advance of the age, but if they were now to rise from the dead they would be amazed at the progress of operative surgery since their demise.

More diversified experience, increased facilities, and improved methods and means, including anæsthesia and antisepsis, have so extended the possibilities of our art as to bring within the domains of legitimate, every day surgery, operations which, but a few years ago were performed, if performed at all, with doubtful propriety, and in the seclusion of a hospital.

We no longer hear about trespassing upon nature's forbidden grounds, since scarcely any part of the human body, subject to disease or traumatism, is now beyond the reach of surgical skill.

The trocar and the scalpel explore the great cavities of the body with frequency, and with a safety heretofore undreamed of. The vault of the cranium is lifted in search of the demon of epilepsy, while the laparotomist enters the abdomen with as much con-

fidence as the dentist extracts a molar, and deep-seated vital organs are explored with comparative impunity. Confidence, born of knowledge and skill, has rendered these operations safe and feasible. Of course many of them could not be accomplished without the aid of the letheon, which is not only the patient's but the surgeon's supreme benefactor.

We who have seen capital operations performed without anæsthesia, and have witnessed the shrieks and convulsions which blanched the faces of students and communicated a tremor to the hand of the coolest operator, can well appreciate the boon.

With all the extraordinary advantages which science has furnished us, certain intrinsic qualities, knowledge, sound judgment and native tact, must fit the surgeon for his duty.

Whoever undertakes a difficult and dangerous operation without an unclouded comprehension of the relative anatomy, the pathology, and the special indications of the case in hand, is guilty of a crime, however mere luck or chance may determine the result of a groping procedure.

In all important surgical, as well as medical practice, the one constant element of safety and success is an accurate diagnosis, diagnosis, and again DIAGNOSIS.

REPORT OF TWO CASES OF SEVERE VOMITING OF PREGNANCY.

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IT is the purpose of this paper to present merely a clinical study of two cases without entering upon the voluminous and oft-rewritten literature of the subject.

CASE I.—Mrs. P. S.; of nervous temperament; delicate from childhood, but subject to no special organic disease; married at the age of twenty-six, and became pregnant within a few months. Nausea and obstinate vomiting developed early. Apparently, nearly all nourishment taken was rejected. She soon became so much prostrated as to be confined to her bed. Her weight, in a few weeks, fell from one hundred and two to seventy pounds. Local examination revealed the signs of an early pregnancy; a conical and very long cervix; no displacement or peri-uterine tenderness. Under treatment by rest in bed, careful regulation of diet (most of the time an exclusive milk diet), bromide of potash, and oxalate of cerium, the vomiting was somewhat mitigated and nutrition maintained.

At three and a half months the vomiting ceased; she regained most of her weight, and was in fairly good health during the remainder of her pregnancy.

Following a natural but tedious labor she had postpartum hemorhage, and on the third day the development of puerperal septicæmia. For many weeks she hovered between life and death, with a very high temperature and extremely rapid pulse. Recovery was tedious and imperfect, the patient being left with a weak and irritable heart and a shattered nervous system.

Six years later (in 1888) having but partially regained her health, she became again pregnant, and, as before, soon began vomiting and to lose strength rapidly. More distressing even than the vomiting were constant nausea and gastralgia.

There was no uterine displacement, no peri-uterine tenderness; there was about the same as the usual softening, except at the point of a laceration sustained in the first labor, which was hard. The urine contained no albumen, casts, or sugar.

After three weeks' treatment upon the same plan as before, during which there were variations for better and for worse, but a gradual loss of strength upon the whole, it was decided, in consultation with Dr. T. A. Reamy, to induce abortion.

This decision was made not only upon the threatening character of the vomiting present, but upon the previous history of ill health and the rapid loss of strength. Since the nausea and vomiting were no worse than in the first pregnancy she might have survived, and, as before, ceased vomiting at the end of three or four months. The chances, however, in her already enfeebled condition, of living through another pregnancy and parturition were too small to justify the risk. The pregnancy was now so far advanced that it could—in this case—be positively diagnosed; to wait longer was to incur great danger of the patient becoming too far reduced to rally after an abortion. As the patient's condition was such as to allow some delay, electricity was selected as the means, being considered the safest, although slower and less certain than some other methods.

A daily séance of fifteen or twenty minutes of the Faradic current, as strong as could be comfortably borne, was given, for six days. One pole was placed over the abdomen; the other, a uterine sound, introduced, with antiseptic precautions, into the cervix—not through it.

Soon after the sixth application uterine pains with slight hemorrhage came on, and the fœtus was expelled in about five hours. The placenta not following promptly two fingers were introduced, and the already loosened placenta easily removed. A few adherent fragments were removed by the curette, and the uterus irrigated with a $\frac{1}{3000}$ bichloride solution. The fœtus was apparently of about twelve weeks' gestation. After the third or fourth application of electricity there was an amelioration of the vomiting, complete relief after the abortion, and prompt recovery to as good a state of health as preceding the pregnancy.

Her general health has since very considerably improved.

CASE II.—Mrs. C., aged twenty-seven years, a slender brunette of nervous temperament; has never been very strong; prior to marriage had been treated for "falling of the womb" and "ulceration," and had had two attacks of "inflammation of the bowels"—probably pelvic peritonitis.

Came under my care—having recently removed from a distant city—June 10, 1889. Married two years; one child nine months old.

The first three and a half months of her first pregnancy had been marked by very severe vomiting, with emaciation and prostration sufficient to confine her to bed. It had ceased at the end of that time, and she had been well during remainder of pregnancy. Labor natural; convalescence prompt and good; general health better since than before.

Menstruation returned four months after delivery; was regular up to period due May 8, which did not appear. Two weeks later began to have vomiting, which grew gradually worse. At the time of my first visit she was vomiting after each attempt to take food or drink, with occasional retching when nothing was taken.

Stated that she had been vomiting and retching almost incessantly for over two weeks. The countenance wore an anxious expression and was slightly jaundiced; tongue coated, with red margins; breath offensive; slight salivation; had lost much weight; complained of backache, severe pelvic pain, free leu-

corrhœa; bowels, constipated; vesical tenesmus; temperature, 99°; pulse, 90, fairly strong.

Vaginal examination: Uterus enlarged, corresponding to six or eight weeks' gestation, not displaced; cervix, lacerated on one side, with deposit of some cicatricial tissue in angle of rent; great tenderness to pressure about whole vaginal vault; no erosion of os.

Ordered: Nothing to be taken by mouth except carbonic acid water and oxalate of cerium, gr. 4 every three hours; *per rectum*, beef peptonoids with chloral hydrate and bromide of potash, each gr. xxx.

11 P. M.—Rectal injection not retained; vomiting and retching violent every few minutes; much exhausted; complains of "pain in the womb." Ordered: Nothing per os; an opium suppository, which gave relief in about half an hour, when an injection of 2 oz. of beef peptonoids was retained. Rested well until 4 A. M., when bowels moved and vomiting recommenced.

June 11.—Gave, in morning, vaginal douche of hot water, on account of peri-uterine tenderness; rectal injections not retained; vomiting and retching so incessant and suffering so great that gave morphine hypodermically, gr. $\frac{1}{3}$; and in the afternoon an opium suppository, followed in an hour by an injection of peptonized milk, which was retained. Vaginal douche repeated, followed by packing of wool saturated with boro-glycerine.

In four hours rectal injection of peptonized milk, with bromide and chloral, āā gr. xxx repeated. Temperature, 99°; pulse, 90. Injection not retained. During evening was not vomiting, and felt stronger. Slept from 11 to 1 o'clock.

June 12, 7 A. M.—Vomiting began again at 1 A. M. Temperature, 99°; pulse, 90. Still takes nothing by mouth; retching not quite so severe as yesterday; given morphine, hypod. gr. $\frac{1}{4}$, to be followed in one hour by wine-glassful of peptonized milk. 11 A. M. Has slept a little; milk was immediately vomited; retching occasionally. Morphine repeated: rectal injection. 2 oz. peptonized milk with bromide and chloral, āā gr. xxx; vaginal douche, followed by packing; ordered bromide of potash, gr 4, with half wine-glassful of iced champagne every two or three hours. Rectal injection retained. 5 P. M. She had rested fairly well up to 3 P. M. Now vomiting mucus streaked with blood; temperature, 99° (ax.); pulse, 90: the vomiting is not for some little time after taking the champagne and bromide. Ordered: Ice-bag kept on hypogastrium; champagne and bromide continued, also, the following suppository *per vaginam*: Ext. opii, gr. 1; ext. cannabis ind., ext. belladon. āā gr. $\frac{1}{3}$. For two hours after applying the ice-bag had no vomiting. 11 P. M. Again retching violently, and vomiting up mucus streaked with blood; hypodertic injection of morphine, gr. $\frac{1}{4}$, given. In few minutes relieved and a little hot water was retained. Rectal injection of peptonized milk at 6 P. M. was retained; now repeated, but not retained.

June 13.—Has kept on ice-bag and taken champagne and bromide; at 4 A. M., rectal injection (not retained), peptonized milk and a suppository per vaginum; at 7 A. M., vaginal douche of hot water and one of above suppositories per rectum. 12 M. Has retched and vomited a little; champagne and bromide retained and enjoyed by patient; nothing else given by mouth; is brighter and a little stronger; temperature, 98° (axillary); pulse, 90. Urine—as throughout—contains neither albumen, casts, or sugar; somewhat diminished in quantity. Rectal injection peptonized milk with bromide and chloral, āā gr. xxx, not retained. 10 P. M. Again vomiting and retching violently; seems greatly prostrated; anxious expression; seen by Dr. Reamy in consultation, who introduced the index finger into cervix up to internal os. Champagne and bromide and the suppositories, *per rectum*, continued; ice-bag put on nape of neck.

June 14.—Slept fairly well; vomited twice only during night; had two suppositories during the night; feels better; temperature, 98°; pulse, 115. 12 M. Has twice retained 1 oz. of milk, with champagne and bromide; suppositories per vaginum every three hours. 7 A. M. A little retching occasionally; no suppositories during afternoon.

June 15.—Rested well; is brighter and stronger; vomited twice during night, but not violently; retained peptonized milk; ice-bag kept to nape of neck; bromide and champagne continued; suppositories given twice during night and in early morning. 7 P. M. Retains milk given in small quantities; very little vomiting.

June 16.—One severe attack of vomiting; two suppositories during day; other treatment continued.

June 19.—Has continued to steadily improve; taking milk in small quantities; a suppository once or twice daily; no vomiting; occasional nausea; diet enlarged a little.

June 20.—Stopped bromide and suppositories; milk, ice-cream, and beef steak retained; has a slight uterine hemorrhage.

June 21, 5 A. M.—Free hemorrhage; uterine pains; fœtus already expelled and lost; placenta in cervix, removed by fingers, a few adherent fragments removed by curette and uterus washed out with carbolized solution. Placenta was apparently of about ten or twelve weeks. Convalescence was good. Some three or four weeks later she complained of pelvic pain and backache.

Examination revealed subinvolution of vagina and uterus, slight prolapsus, and a tender mass to the left of the uterus the size of a hen's egg. After several weeks of treatment by douches, tampons and galvanism, involution was complete; position of uterus about normal; the mass greatly reduced in size, not tender to touch; the patient free from subjective symptoms. She has since remained well.

When so many remedies are used, as in this case, it is difficult to decide as to the real effect of any one. Bromide of potash and chloral *per rectum*, so highly commended by Dr. Busey, (*American Journal Medical Science*, 1878, p. 140), and others, had little effect in this case.

Rectal feeding was in this case partially successful, but the nutrient injections were only retained when she was under the influence of opium.

One application to the os of nitrate of silver was made, but not repeated because no apparent benefit followed, and there was no inflammation or erosion. Ether spray to hypogastrium was also without benefit. The ice-bag gave so much relief that the patient clung to it almost constantly after its first application. It did not, however, stop the vomiting, except for a short time at first.

The iced champagne was very grateful to the patient and was retained when other things were rejected.

The only remedy which stopped the vomiting was opium, by suppository or by hypodermic injection of morphine. Vomiting would, however, return as soon as the effects wore off, and it was necessary to gradually increase the dose.

In some reported cases, it has failed to control the

vomiting, or finally loses its effect when it has been successful at first.

Except as stated in the report, remedies by the mouth were avoided. When the case has reached this stage to persist with internal remedies is not only useless but aggravates the trouble.

Since Copeman reported his success with the method, (*British Medical Journal*, 1875), dilatation of the cervix by finger or instruments has been often used with success. So often, indeed, that Dr. Gill Wylie claims that rigidity of the cervix is nearly always the cause of the vomiting, and that the cases of failure are due to the dilatation, not having been done thoroughly enough. When the first dilatation fails, he repeats it. (*Medical Record*, 1884; "Trans. Amer. Gyn. Soc.," Vol. 13, p. 259.)

In discussing an able paper upon the subject, by my friend, Dr. G. S. Mitchell, in the Cincinnati Obstetrical Society, Dr. Reamy reports that since 1872 he has so treated thirty cases, with success in two-thirds. He, at the same time, points out that the cases adapted to the treatment, and in which it is successful, are those in which there is rigidity of the os. (See *Cincinnati Obstetrical Gazette*, 1885, p. 118.)

Abortion not unfrequently follows, and hence the procedure should be reserved until other means have failed, but not delayed until the patient is too greatly exhausted.

As bearing upon etiology, we note in both these cases the absence of displacement. In each a lacerated cervix with some cicatrical deposits. The softening of the tissues about the os externum, was about as much as we are accustomed to find at the corresponding periods of pregnancy, except just at the point of laceration. Both had histories of preceding inflammatory attacks. Both were delicate women of nervous temperaments. In neither was there any evidence of "endometritis gravidarum," to which as a cause, in some cases, attention has been drawn by Veit, Ebell, Jaggard, and others, the placenta in both being quite healthy; and neither had any history of endometritis.

The tube-ovarian disease, discovered in Case 2, may have existed previous to the pregnancy, or may have developed after the abortion. If it pre-existed it may have played a rŏle in causation.

Case 1 had suffered much of indigestion since the illness following her first confinement, yet her vomiting was less severe than in Case 2, who had no history of previous gastric trouble.

There has been in neither case any history of physical sign of tuberculosis. Neither case presents a strumous diathesis.

A CASE OF RUPTURE OF THE UTERUS AND VAGINA.[1]

By DR. JALKO-GRINTSEVICH.

RUPTURE of the uterus or vagina, more frequently of both together, belongs to the most unfavorable accidents that may happen during pregnancy, more frequently during the act of parturition. Such accidents usually cause not alone the death of the mother and fœtus, but give rise to the generally groundless accusations against physicians who tended the patient, charging them with carelessness and lack of knowledge of obstetrical manipulations. Although such unfortunate cases are of rare occurrence of late, since obstetric operations became more perfect, nevertheless science cannot ward off or foresee those cases where rupture of the uterus is spontaneous or caused by the attending physician.

The causes which predispose pregnant women to rupture of the uterus are:

1. Diseased weakening of the uterus itself, due to thinning of its serous, fibrous coats or fatty degeneration.

2. Great mental excitement, which causes a sudden contraction, even of a healthy uterus.

3. Great exhaustion or violent movements, traumatism, falls, severe vomiting, and various other mechanical causes directly or indirectly influencing the uterus.

4. A long series of anomalies, to wit: double uterus, contracted pelvis (which, according to Radford,[2] occurs once in eighteen parturitions), extra-uterine pregnancy, all new growths of the ovaries which distend the already distended uterus, etc.; and

5. Awkward manipulations of the accoucheur while extracting the fœtus.

Obstetrical casuistry is rich in literature describing rupture of the uterus during pregnancy, as well as during parturition. I will endeavor to remind the readers of the most striking cases.

H. Cooper[3] had under observation a case of rupture of the uterus occurring at the third month of pregnancy; MacKinley,[4] at the fourth month; Harrison,[5] fifth month; Mitchell,[6] sixth month, where the woman, feeling some pain in her stomach, suddenly expired, being frightened by a flash of lightning, and the uterus, having contracted around the knee of the fœtus, was ruptured. A similar case was reported by Scott,[7] of Bromley. A woman, at the fifth month of pregnancy, was awakened at night with severe pains around the umbilical region, and the autopsy showed a rupture of the fundus of the uterus, through which the fœtus, with the membranes, was protruding into the abdominal cavity. Cases at eight or nine months are rarer. The first who described such cases was Guilleman,[7] after Velpeau.

The frequency of rupture of the uterus is estimated by various authors differently. According to Ingleby,[8] one rupture to 300–400 pregnancies. According to Bluffy,[9] one in 466 pregnancies. Collins[10] has seen 16,414 pregnancies and 34 ruptures—*i. e.*, one rupture in 482 (two recovered, and one even gave birth afterward twice). McClintock Hardy, in 6,634 deliveries, had 9 cases—*i. e.*, one in 737. Ramsbotham[11] reports that, in the Royal Maternity Charity in London during the period of 21 years, there were 48,719 deliveries, with 11 cases of rupture of the uterus or vagina —*i. e.*, one in 4,429. From the statistics collected by Franque,[12] it appears that, in 367,708 deliveries, there were 114 cases of rupture—*i. e.*, one case to 3,225 deliveries.

R. Barnes[13] says that rupture of the uterus during parturition occurs at the time when the head of the

[1] Translated by C. D. Spivak, M.D.

[1] Obstetrical Transactions, 1867.
[2] British Med. Journal, 1850.
[3] Glasgow Med. Journal, 1861.
[4] Amer Jour. Med. Sci., Vol. VIII.
[5] Medical Repository, Vol. VIII.
[6] Obstet. Transac., 1870.
[7] Œuvres Comp., p. 319.
[8] Essay on Laceration of the Uterus and Vagina. Dublin Journal, 1836, No. 24.
[9] Die Zerreissing des Uterus u. der Scheide während der Schwangerschaft u. Entbindung. U. Siebold Jour., Vol. XV, 1835. p. 249.
[10] A Practical Treatise on Midwifery, 1835, p. 249.
[11] Arnett. Die Geburts, etc., Wien, 1851, p. 184.
[12] Wiener Med. Press, Vol. VI, 24, 25, 26, 28, 1865.
[13] Leçons sur les Operation obstetricales.

fœtus enters the pelvic cavity; when the pressure upon the upper segment of the vagina is very great, and the uterus, in its attempt to expel the fœtus, distends the ring of the os with such force that either a longitudinal or circular rupture happens.

According to Ingleby,[1] the ruptures are more or less oblique; sometimes the rupture extends around the whole circumference, thus severing the uterus from the vagina. Collins, Moulin, Elkington, Roberton, and many others describe cases of complete severance of the uterus from the vagina. Simpson has seen a case of simultaneous rupture of the uterus and peritoneum following the injection of warm water into the uterine cavity to induce labor. Ruptures of the vagina were minutely described by McClintock[2] and Scanzoni. They may be complete or incomplete. The incomplete happen in either the upper or lower third of the vagina. If the posterior wall of the vagina is ruptured, the fœtus gets into the peritoneum and the bowels protrude. The large size of the body or head of the fœtus may, if accompanied by other complications, be the cause of the rupture, which explains the reason that the majority of ruptures happen in the deliveries of male children.

Fortunately for the physicians, they are rarely present at the time of the accident, for they are mostly called when all is over. Though, according to the opinion of all the authorities, the physician witnessing a rupture, or performing an obstetrical operation, is neither able to prevent the possibility of a rupture of the uterus nor can he foresee, judging by the symptoms alone, the danger of a coming rupture, nevertheless, the public, in such cases, accuses not only the physician who performed the operation, but even him who was merely present at the delivery.

There are many cases on record where physicians were charged in courts of justice with ignorance of obstetrical manipulations, which were supposed to have caused rupture of the uterus. However, in all the reported cases, the medico-legal experts invited by the courts have, in the majority of instances, found them guiltless. I will cite only one instance, which occurred in London in 1860, where a physician was accused that, by awkward and unscientific manipulations, he had caused a complete circular severance of the uterus from the vagina, with a prolapse of the uterus and placenta. However, the committee of experts, consisting of Barnes[3] and Hicks, found him innocent of the charge, and the cause was ascribed to the diseased state of the parturient, and the relaxation and weakness of the uterine tendons, which could not withstand the pressure of the parturition. A similar case is reported by Paget,[4] of Leicester, and many others.

The case of rupture of the uterus which I am going to relate, from my own private practice, may be numbered among those rare cases in obstetrical practice where the physician figures not as a mere witness who merely reports what has already taken place, but as one who had the opportunity to watch and observe, and also take an active part. I submit it as a very instructive case to young fellow-practitioners, solely with the view of giving a true picture of what a predicament one may find himself in.

On the 19th of September, 1889, at noon, two men called upon me and requested me to examine their relative, who was severely injured in a fight, and also to visit his wife, who, thinking that her husband was killed in the affray, was unable to give birth.

Having arrived at the house of the patient, I found there the midwife, Mrs. Grigorieff, who informed me that the bag of water was ruptured early in the day, and the labor pains had ceased since a few hours. Mrs. O., the patient, was forty years old, multipara, and, according to the report of the midwife, her latter deliveries were quite difficult; adding also that Mrs. O, applied to her for the relief of some uterine trouble.

Previous to my arrival many attempts were made by the midwife to extract the child forcibly.

Having examined Mrs. O.,. I found her genitals greatly swollen, of a bluish-red color; a bloody serum mixed with mucus was exuding; pulse very feeble; no pains. On digital examination, oblique position of fœtus and presentation of right arm.

Having waited for quite a long time, I thought it advisable, in view of the dangerous condition of the patient, to deliver artifically. I introduced my hand into the cavity of the uterus and performed podalic version. While extracting the legs, I felt the want of resistance to my pulling; still I continued the operation, extracting the body and easily freeing its arms. My attempts, however, to extract the head, by hands or forceps, were unsuccessful, as the head was high up, and could not be reached, even by the fingers. Having noticed, by the absence of pulsation in the cord and the peeling off of the skin on the back and legs, that the fœtus was dead, and that the parturient was in a precarious condition, with a lowered pulse and bathed in cold sweat, which required immediate relief, and not being able to consult with any other physician, on account of their absence from the city, I decided to decapitate the fœtus. Resorting to this hazardous operation in the absence of any other means of extracting the head, I thought to gain by so doing more freedom of action. But, even after the head was severed from the body, all my attempts to extract were futile, as the head slipped away and was moving freely in the lower region of the abdomen, which led me to the conclusion that the uterus was ruptured, and to extract the fœtus through the birth canal would be impossible.

As to the time of the occurrence of the accident, it may have happened thirty-six hours previous to my arrival, before the bag of waters was ruptured, at the time when the uterus was in a state of its highest tension. This supposition is mainly based upon my observations of the sanious exudation from the genitals and the general collapse; there being no sudden and excruciating pain, which, according to all authorities, accompanies rupture of the uterus, and which I did not notice while performing version; and, finally, the ease with which I extracted the body, not meeting any resistance from the ordinary tight grasp of the uterine walls around the fœtus. A spontaneous rupture of the uterus may have occurred. On account of the parturient being a multipara, having difficult deliveries, suffering with uterine trouble, and therefore the fibres of the uterus may have presented considerable friability and insufficient elasticity; that the fœtus was dead, due to its abnormal presentation; that the head was pressing for a considerable time, and compressed the already degenerated uterine fibres; of the nervous shock she had received at the information of the death of her husband, and the interference of the old woman previous to my arrival—all these were such favorable instances, each of which separately could have caused rupture of the uterus. Although I cannot deny the fact that, notwithstanding the rightly-performed operation of podalic version (sev-

[1] Obstet. Med.
[2] Dublin Quart. Jour. Med., 1866.
[3] R. Barnes. Leçons sur les Operat. obstetriales.
[4] British Med. Jour., 1861.

enty-nine times during my fourteen years of professional career), in the state of health of the parturient and the accompanying circumstances, the rupture of the uterus may have occurred during the version.

Having ascertained that I could render no services to the parturient, and also in view of the fact that she herself and all the others objected to any further medical interference, and her state was hopeless; fearing, also, the threats of those surrounding her, I departed, after a six hours' stay, telling them, however, in case they would need my aid, to send for me.

I was not called, and I learned afterward that she died on the second day—*i. e.*, on the 20th of September, at 2 P. M., of gradual exhaustion.

The autopsy was made four days after her death. When the abdominal cavity was opened, the first object in view appeared, the head of the fœtus, lying in front of the uterus, face downward into the cavity of the pelvis, and the occiput upwards; frontal to the left and throat to the right of the hypogastric region. Having carefully removed upwards, it was found, in the true pelvis, at the junction of the uterus and vagina, a transverse rupture of the fundus of the vagina five inches in length. The uterus was found to be ruptured longitudinally two inches long. Other injuries there were none. In the bladder, which was empty, was found coagulated blood.

The diameter of the head of the fœtus: longitudinal, 4½ inches; transverse, 3½.

MEDICINA, No. 9, 1890 (ST. PETERSBURG.)

The Polyclinic.

PHILADELPHIA HOSPITAL.[1]

SERVICE OF ERNEST LAPLACE, M.D.

RADICAL CURE FOR HERNIA.

THE first case I bring before you this morning is one of great importance, and I will request you not to raise any dust, as, in the present day of antiseptic surgery, we are only allowed to operate under the most favorable surroundings, and should not expose the wound unnecessarily. This case will undergo the operation for the radical cure for scrotal hernia. The operation consists in cutting into or upon the sac, investigating matters, and looking for adhesions; reducing the hernia; dissect the sac and put a ligature around its neck; obliterate the sac and treat antiseptically.

What are the dangers connected with this operation? We must think of the epigastric artery, and in this case it is internal to the hernia. We are not going to cut around the ring, but we only want to obliterate the sac at its neck. The sac is a projection of peritoneum, pushed through the ring by a knuckle of the intestine. This is a scrotal hernia which was acquired. A congenital scrotal hernia has no distinct sac, but the intestine goes through the ring into the tunica vaginalis testis. In this case the sac is in front of the tunica vaginalis testis. The acquired cases of hernia are the cases, if there are any, where we should be prudent and cautious in the use of antiseptic measures.

In this case you will find that, contrary to what I have just said, I will not be *anti*septic, and will not use antiseptics, but I will be *a*septic. I will remove all germs, and there being no germs present why use antiseptics? Antisepsis is a stepping-stone to *a*sepsis. That is the reason why Tait decries antiseptics. He is so careful in the preparation of his patient, assistants, and instruments, that there are no germs present, and, therefore, no need of antiseptics.

We have subjected the cotton to be used in this case to the heat in an oven for an hour, and we know that all germs have been killed. The patient has been given a bath, and the parts thoroughly washed with soap and water; then with ether and sublimate. A towel dipped in sublimate has been on the parts all night. All hair has been shaved from the region in which we will operate.

The first point to be done is to reduce the hernia, and have the assistant place his fingers firmly over the inguinal ring—the inguinal canal is virtually destroyed, for the external and internal rings are in opposition. I cut directly over the sac and dissect it out. The great point is to isolate the spermatic cord so as not to include it in the ligature. We are not using carbolic acid or sublimate solution, but water that has been boiled and allowed to become luke warm. I can see this glistening membrane and know it is the sac of peritoneum. I divide all adhesions with my fingers and can outline the membrane as it comes through the ring. Pass a ligature around the neck of the empty sac close to the ring. Be sure that the hernia is wholly reduced, and examine carefully, so as not to include the spermatic duct. It makes little difference if the spermatic veins are ligated, for this is done in the operation for varicocele. I draw the ligature tightly, and simply leave the sac in position, for I think it will be obliterated, owing to the irritation I have produced. I make an opening in the sac for the escape of any secretions that may collect in it.

The wound is thoroughly painted with a solution of iodoform and ether; a drainage tube is put in: a continuous suture, which supports the parts better than the interrupted, is used; and the parts dressed with iodoform and sterilized cotton and a layer of oiled paper is placed over the whole to keep out the dust. There is no reason why the wound should not heal by first intention.

TALIPES EQUINUS.

The next case I bring before you is this little boy, who has an affection called talipes equinus. Like the other forms of club foot, it may be hereditary or acquired. The etiology of the disease is not known. Some forms of club foot are due to an irregular development of the astragalus. We may have talipes varus or valgus, but in those cases where the muscles are shortened or paralyzed, the direct cause is not known. Here is another of those cases where scrupulous precautions are indicated. For ages tenotomy has been performed with the same good results, because we used a good, clean knife, and no germs got into the wound, because, unlike large wounds, it was not exposed to the air. In performing tenotomy, one must be careful not to wound the underlying structures.

Stretch the foot so that the tendon will stand out. Put the tenotome under the tendon, with the edge directed out, allow the tendon to cut itself, and do not remove the knife until the tendon gives a distinct snap. If we did not put a permanent dressing on this foot, the tendency would be to return, for, as tendons are living tissues, granulations occur and fibrous tissue is formed, and the ends unite, and by the contraction of the cicatrix the foot is drawn in the same position. Keep the foot in a flexed condition, and in this way the tendon will be lengthened when healed. Dress the parts antiseptically, and put on a plaster of Paris dressing. In putting on this dressing let me impress the necessity of a good layer of cotton next the skin. Pain is caused if there is not enough cotton, because the parts will swell, and by the pressure cause pain.

The Times and Register

A Weekly Journal of Medicine and Surgery.

New York and Philadelphia, Aug. 2, 1890.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

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ARSENICAL PERIPHERAL NEURITIS.

BARTON records two cases in *The Lancet*. In the first case a woman, aged twenty-three years, gave a history of two months' illness. The attack began with severe occipital headache, lasting two days, and followed by diarrhœa. On the sixth day she was prematurely delivered of a child, which soon died. A few days later the fingers became numb; extending to the hands and wrists; and the next week affecting the toes and the knees. Loss of power followed in the hands and legs; so that in three weeks from the beginning of the attack she could hold nothing in her hands, though she could sit erect and control the sphincters. She had hyperæsthesia of the forearm, thigh and calf muscles; great pain in extending them, and spontaneous pain also, which prevented sleep. Tactile sense and pain were normal; the feet felt cold, and were covered with sweat. Muscle reflexes in arms and legs were lost, but the plantars were normal. The limbs wasted; brown maculæ appeared on the face and legs; the muscles did not react with either current.

The other case was this woman's husband; and his occupation disclosed the source of the disease. He was assistant to a naturalist, and prepared the birds' skins by rubbing into them an arsenical preparation. His symptoms resembled those of his wife.

Oxide of silver was given, in doses of two grains thrice daily, and he rapidly improved. The author draws attention to the importance of examining the urine in cases of peripheral neuritis, for the poisons that are known to be capable of producing this state. The close analogy of these cases to alcoholic and other toxic palsies indicates that the pathological condition is the same—namely, an inflammation of the sheath and probably of the parenchyma of the peripheral nerves.

These cases lead us to remark upon the great importance of a close study of obscure cases. There can be little doubt that, in the hurry of a physician's busy life, many cases are classified as variants from ordinary affections, when closer observation would afford interesting, perhaps startling, revelations. Especially is this the case where the possibilities of poisoning are considered. Dr. Janney said some years ago, as the result of his observations while coroner, that cholera morbus is never fatal to a robust man in this country, and that the cases so recorded in our mortuary reports are really instances of arsenical poisoning.

A good, *modern* work on toxicology should form part of every physician's reading; and once in five years such a work should be purchased, that the practitioner should be ready to detect the symptoms of metallic or organic poisoning, when presented. Not only is arsenical poisoning attributed to cholera morbus, but many other forms of toxicity are overlooked. Every outbreak of lead poisoning which has been detected, has shown that numerous cases were treated previous to the exposure, without being recognized. Trichina cases crop out whenever a single case is reported, and a corresponding decrease takes place in the number of typhoid fevers. Whether tin poisoning ever occurs is doubtful; notwithstanding the oft-repeated attempts to get up a sensation concerning the dangers of canned goods. Lead poisoning is common enough, if the cans are made of tin containing the other metal, especially if the food contains acids; but pure tin is probably free from all noxious qualities. As to the organic poisons, they are less frequently observed. We are not yet sufficiently informed as to the possibilities of danger from the milk of cows that have eaten poisonous plants. The odorous principles of garlic are absorbed, and communicate the peculiar flavor to spring butter; but how far noxious plants can be eaten with impunity by animals and still prove poisonous in the milk, is an open question.

Annotations.

A WRITER in the Cincinnati *Lancet-Clinic* recalls the analyses of quinine pills published in the *Medical News* in 1883, which showed that the highest-priced pills in the market had the smallest amount of quinine in them. It is noteworthy that the influence of this article is still felt, after the lapse of seven years, and that the mention should be made by a physician in Wyoming.

AS yet, no one has progressed sufficiently in the demand for higher medical education to advocate the course now required by the University of Coimbra. Fourteen years' study are exacted: six spent in obtaining an ordinary education, three in a preliminary scientific course, and five in purely medical studies. Now the students complain because the final examination is conducted in Greek!

We would naturally suppose that the product of such an overwhelmingly complete preparation would be something wonderful; but we do not recollect any great discoveries made by Portuguese doctors, nor any other indications of their superiority over the rest of the professional world. On the contrary, the ratio between preparation and performance reminds us of the story about a man who was disinclined to climb a mountain; therefore he concluded to jump over it. He took a run of three miles to gain sufficient impetus; then, after he had got rested, he walked over the mountain, as others did.

Book Reviews.

DISEASES OF THE RECTUM AND ANUS. Their Pathology, Diagnosis, and Treatment. By C. B. KELSEY. Third Edition, rewritten and enlarged. With two chromo-lithographs and 168 illustrations. New York : Wm. Wood & Co., 1890. Cloth, pp. 483.

The first edition of this work was a book which richly repaid the physician for his investment in it. In the present volume may be seen how much the subject has developed in the hands of its author. While some of the cuts are obscure, there are enough good ones to make this the best illustrated work on rectal disease we have seen. The author says that the chapters on stricture and on artificial anus have been entirely rewritten. The modest preface, however, gives but a poor idea of the amount of work which has been expended upon this edition. In every chapter there are evidences of the author's research, and of the judgment matured by experience. The chapter upon hemorrhoids will be found of special interest, as the author gives the results of his later experience with the carbolic injections, and his reasons for abandoning this method of treatment in favor of Henry Smith's clamp and cautery operation.

In No. 3 for 1890 of *Archives of Dermatology and Syphilis*, Prof. J. Doutrelepont, of Bonn, "On Urticaria Pigmentosa," reports a case of that rare disease, beginning in the sixth month of infancy, the patient (a girl) having previously a clean skin. The case came under the observation of Dr. D. when nine years old, and after seven months was, at the request of the parents, discharged uncured. There was no history of syphilis; and itching, an almost constant symptom in previously reported cases, was absent, and in its stead a burning sensation. In positions where the exanthem abated there was no alteration of the skin.

Dr. Ernest Finger, of Vienna ("Syphilis as an Infectious Disease, from the Stand-point of Modern Bacteriology," draws conclusions from analogy, and formulates hypothesis fixing responsibility for certain manifestations on the germ itself, and for certain others on derived products (ptomaines). In this speculative way he attempts to explain immunity, and also non-contagiousness of tertiary products.

Dr. S. Róna, Buda-Pesth, reports a case of measles complicated with inflammation of Cowper's gland.

Dr. S. Laufer, Buda-Pesth, reports a case of erythema multiforme appearing on the fourth day of a typhoid fever attack, in a female, aged twenty-three, in which death occurred on the twenty-first day of the disease. He attributes the skin disease to micrococci.

Prof. J. Doutrelepont makes a supplementary report to a former one of a case of multiple gangrenous skin disease, which he classifies as Zoster gangrænosus hystericus atypicus recidivus universalis. The origin was a prick of a needle under the left thumb nail ; the duration of the disease over five years, during which time Prof. D. closely observed its progress and course, and the eventual cause of death, pulmonary tuberculosis. The present writer might add that for several years there was under his observation a young hysterical girl (the above case was hysterical, and all others thus far reported except one), who, from a slight burn on the back of the left hand, developed similar symptoms, which, up to the time that she passed from his observation, had never crossed the middle line, and had been confined to the arm and thorax.

Dr. Robert Töply ("Venereal Diseases in the Armies") gives statistics from the armies of all nations and establishes the fact that, for all armies, the venereal cases reach from 50 to 100 per 1,000 men yearly, and that, leaving the American War of the Rebellion and the Crimean War out of the calculations this is a greater loss than from wounded in the years embracing the most active campaigns. In certain garrisons the proportion of affected men reaches one-third. The proportion of wounded English in the Crimean War was under one-third per year ; while in all other wars tabulated it reached, in the highest instance, the French War of 1859, only 150 per 1,000, and in the lowest instance, in Bosnia, 1875, 20 per 1,000.

—Samuel Wolfe.

Pamphlets.

A Case of Locomotor Ataxia Associated with Nuclear Granial Nerve Palsies and with Muscular Atrophies. By FREDERICK PETERSON, M.D. Reprinted from *The Journal of Nervous and Mental Disease.*

Identité de la Dengue et de la Grippe-Influenza. Par Le Docteur JULES ROUVIER. Prix: Un franc. Paris et Beyrout.

Note on Extra-Neural Nervous Disease. By C. H. HUGHES, M.D., St. Louis, Mo. Reprint from *Alienist and Neurologist.*

Circular Insanity. By THEODORE DILLER, M.D., Danville, Pa. Reprint from the *Amer. Jour. Med. Sciences.*

Chorea in the Adult as Seen Among the Insane. Some Observations on the Hereditary Form of Chorea, with the Report of a Case. By THEODORE DILLER, M.D., Danville, Pa. Reprint from the *Amer. Jour. of Med. Sciences.*

The Medical Digest.

LUCIANI reports two cases of facial epithelioma cured by the local use of resorcin.

RISK (*Brit. Med. Jour.*) reports a case of deafness from syphilitic disease which recovered under the use of pilocarpine.

HÆBERLIN mentions a case in which exophthalmic goitre appeared during pregnancy and subsided after the death of the fœtus.

OWEN (*Brit. Med. Jour.*) mentions two cases in which threatened abortion was averted by the use of viburnum prunifolium.

HEER advocates rectal injections of salt water instead of intra-venous transfusion, in cases of severe hemorrhages, post-partum, etc.

DR. MILLER, of Bird-in-Hand, recommends chloralamid as one of the best hypnotics for the insomnia of old persons and nervous females.

IN *Notes on New Remedies* a correspondent claims that succus cinerariæ maritimæ is curing his cataract by causing absorption of the opacity.(?)

FAVRE found antipyrine promptly efficacious in mastering an erysipelas that had resisted ichthyol, corrosive sublimate, strapping, cold, carbolic acid, etc.

BROUNER (*Brit. Med. Jour.*) mentions three cases in which concussion of the eyeball, in patients subject to congenital syphilis, gave rise to interstitial keratitis and peripheral choroiditis

LATE CHILD-BEARING.—Dr. E. F. Parsons, of Thompsonville, Conn., reports the case of a lady who was married at the age of fifty years, and gave birth to a female child after she was fifty-one years old.

WILE pronounces sulphonal an ideal hypnotic for children. In the case of an infant aged eighteen months, sixty grains were given by mistake, with no worse effect than a twenty-four hours' nap, and a cessation of the convulsions.—*N. E. Med. Monthly.*

IN the *British Medical Journal* Capes records the case of a woman who had varicose ulcers on both legs, supposed to be due to tight garters. While returning from her work one day bleeding commenced from the internal saphenous vein, and the woman died before she could be got to her home.

SUBLIMATE PELLETS are generally made with the addition of ammonium chloride, but Bond (*Lancet*) suggests the substitution of sodium chloride for these reasons: 1. With hard water the mercury and soda does not form a milky solution, or throw down a precipitate. 2. The solution is neutral and not acid; besides the sodium salt is a constituent of the body fluids.

TROPICAL DIARRHŒA has been usually treated by a diet of milk, but Neve (*Lancet*) records a case in which, after milk had been given for seven weeks with no improvement in the symptoms, the diet was changed to meat, with toast and weak tea. The day the change was made the diarrhœa stopped, and did not return.

ARISTOL has been employed by Eichhoff in the treatment of varicose ulcer with eczema, lupus-exedens, psoriasis, ring-worm, sluggish ulcers, seborrhœic eczema, and congenital syphilitic ulcers. In all of these aristol proved superior to the applications previously made. In soft chancre it did not do as well as iodoform.

HYDRONAPHTHOL is recommended by Clarke (*Practitioner*) in typhoid fever, green diarrhœa of infants, dysentery, and ordinary diarrhœa. He gives two to three grains every two hours. In flatulent dyspepsia and dilatation of the stomach it was of little use. Nausea was caused in some cases, and two out of five of his typhoid cases were severe and prolonged.

HYPNOTISM AND THE CHURCH. [Extract].—A few days ago, an eminent Jesuit priest, Father Lemoigne, by permission of the Archbishop of Paris, spoke as follows from the pulpit of St. Merry, and his words are worthy of preservation.

"To hypnotise a person in order to avoid suffering in the course of a painful surgical operation, is permitted by the Church.

"To employ hypnotism by suggestion, to make an invalid walk who has lost the power of motion, to enable an invalid to eat or to recover the use of his voice, temporarily lost, is permitted by the Church.

"To hypnotise a sick person to alleviate or cure him of disease, to retard the return of nervous crises, which are so common among women and not unknown among men, is permitted by the Church."

The above directions, from the mouth of a prominent clergyman, form an excellent guide for hypnotic applications in therapeutics.

—*La Reforma Medica* (Mexico).

RICKETTS (*Lancet-Clinic*) reported a case of trephining for traumatic epilepsy. Some suppuration followed the operation. The description does not state whether any lesions were found within the skull; and the history renders it doubtful if any operation should have been done; as the man had been a masturbator, his father a drunkard, and his mother hysterical. Five weeks after the operation, the convulsions were less frequent; the last week he had six, whereas before the operation he had had as many as eight per day.

SIR JAMES SAWYER (*Lancet*) recommends ethereal tinctures for use when it is desired to produce a local effect on the skin. Three obstacles to absorption exist; epidermis, the sebaceous secretion, and the insolubility of the drug. Ether has great endosmotic capacity; it probably possesses in a high degree what has been called "diffusion power." It is a powerful solvent for many active drugs, and dissolves the sebum readily. Capsicum, belladonna, iodine and menthol are recommended for local use in ethereal solutions. Ethereal tincture of menthol, one drachm to the fluidounce, is an efficient remedy for superficial neuralgic pains. He applies it with a glass brush.

HOW TO BOIL AN EGG.—I believe that ninety per cent. of the eggs are spoiled by the cooking. A physician orders a soft-boiled egg for his patient; the cook places in the boiling water the egg, and allows it to *boil* for three minutes, takes it out, and thinks she has a soft-boiled egg; but she hasn't. She has an egg cooked hard on the outside and still raw in the middle. Now, if she had first boiled the water, then removed the kettle and stood it on a piece of old woollen cloth, so that the heat would not escape too rapidly, then placed the egg in the water, and allowed it to remain about *six* minutes, she would have an egg evenly and softly cooked throughout, and a very elegant one at that.—*Medical World.*

GEO. R. FOWLER suggests the following as an infants' food:

Put four tablespoonfuls of rice into three pints of water, and boil half an hour; then set aside on back of range to simmer during the day, water being occasionally added by the cook to maintain the original three pints. At night strain through a colander and place on ice. When cold a paste is formed. Three tablespoonfuls of this paste are added to each nursing-bottle (half pint) of milk, and fed during the next day, a fresh supply of rice-paste being under way in the meantime. Should there be constipation, I use farina, prepared in the same way and used in the same proportion. Rice is astringent, farina laxative.

—*Med. Record.*

SULPHONAL.—Field (*New England Med. Monthly*) gives the following recommendations as to sulphonal. The proper adult dose is 15 grains, to be reduced to 12 or 10 after a few days.

The dose should be taked about two hours before the hour for retiring.

The drug should be given in fine powder dry on the tongue, in capsule, or simply wetted on a spoon; never in tablet or suspension.

After taking the dose the patient may read, smoke, walk, etc., as he likes; but must do nothing to cause mental or nervous excitement.

So many grains of sulphonal will buy so many hours' sleep; at first light, but becoming gradually deeper. If the patient is awakened before the time

has elapsed, the effects of the drug will still be manifested for the remaining period by dizziness, etc.

When a minimum effective dose has been determined it may be continued indefinitely.

The point most dwelt upon is the almost mathematical certainty of the effect as compared to the size of the dose.

Catheter Fever.—In failing to recognize a septic cause for the fever which occasionally accompanies catheterism, and referring it to some occult morbid condition of the nervous system, I cannot help observing that the same kind of explanation was advanced, up to a few years ago, as explaining the rigors and fever following the use of instruments for urethral stricture, until I demonstrated, by a series of operations that these phenomena were due to the absorption of some products of the urine, probably of the nature of alkaloids. On this being recognized and provided against, as it now is in most operations on the urethra, the occurrence of such complications, often attended with considerable risk, has been largely diminished, if not entirely prevented, in the practice of most surgeons.—Harrison, *Med. Press.*

Rhubarb as a Cause of Hæmaturia.—It is well-known that the ingestion of rhubarb, celery, and sundry other edible vegetables conduces to the elimination of oxalates in the urine, but the fact has not had any importance other than a physiological curiosity. It is, however, possible that the passage along the genito urinary canal of these prickly crystals may, in certain persons, determine serious irritation, even running on to hæmaturia. Such, at least, is the conclusion of a correspondent who remarked on three occasions that more or less violent attacks of hæmaturia followed a meal comprising stewed rhubarb, in his son. The family was a gouty one, and this may account for the abnormal irritability of the kidneys, for hæmaturia is, fortunately, not a usual, or even a common sequel to a feast off rhubarb.—*Hosp. Gazette.*

Bacteriology of Typhoid Suppurations.—A large majority of authors deny any pyogenic properties of the typhoid bacillus, and ascribe the complications to a "mixed infection" of the patient's system with the specific microbe of enteric fever, and various pyogenic bacteria. Of late, however, a series of cases was reported (by Fraenkel, Kocher, Favel, Weichselbaum, Roux, Vinay, Valentini, and Ebermaier), in which a most careful bacterioscopic examination of typhoid abscess failed to reveal the presence of any microbes beyond the typhoid rods. The question naturally arising, "whether the specific typhoid microbe can give rise to suppurative inflammation, or not," Dr. Orloff has undertaken very extensive course of inoculation experiments on rabbits and dogs, which enables him to lay down the following propositions:

1. Injections of "pure cultures" of the typhoid micro-organism into tissues give rise to local inflammation, with round-cellular infiltration.

2. When injected into joints, the microbes cause the appearance of a sero-purulent, frequently thick mucoid effusion.

3. When introduced under the periosteum or into muscles, the bacilli produce round cellular infiltration (chiefly in interstitial connective tissue), followed by partial sloughing, with disintegration or (more rarely) suppuration.

4. A similar infiltration is also observed after injections of the cultures into the testicle, fractured bones, and inflamed subcutaneous cellular tissue.

5. A subcutaneous injection of the bacilli (in dogs) brings about the development of abscess.

6. The injection into a healthy pleural cavity gives negative results.

7. Injections of sterilized (dead) cultures of the typhoid rods are followed by the same morbid phenomena as described *sub* 1, though in a less intense degree.

8. The fact justifies the supposition that phlogogenic and pyogenic properties of the microbes are dependant—at least, to a considerable extent—upon some chemical substances (such as Brieger's typhotoxin) developing in the cultures in connection with their vital process.

9. In such cases of suppuration complicating or following enteric fever, where the pus proves to contain the typhoid bacilli alone, the morbid process (suppuration) must be attributed to the latter, and not to Brieger's "mixed infection" (*vide supra*).

10. In mixed cultures, the typhoid microbe does not appear to produce any influence on the vitality of the staphylococcus pyogenes aureus.

—*Provincial Med. Jour.*

Gargling has been pronounced by Mackenzie comparatively useless for affections of parts posterior to the anterior faucial pillars. Swain, in the *Medical Record*, concludes that: 1. Gargles, rightly used, reach the larynx, and at the same time can be brought into contact with all the accessible overlying parts of the upper air passages. 2. The method advocated leads surely and easily to the above results. 3. The radically different opinions of authors as regards the value of gargles have led to the neglect of a valuable adjuvant in the treatment of affections of the upper air passages.

The method advocated is that of Hagen. The mouth is a little more than half filled with the gargle; the head is bent back, the mouth opened wide, and a complete movement of swallowing made, not allowing the mouth to close. This movement of swallowing must be complete, though little or none of the fluid will reach the stomach if the mouth remain open. The air is then allowed to gurgle through the liquid as long as possible; then placing the tip of the tongue against the upper incisors, a quick nod allows the fluid to be ejected through the nose.

The advantages of this method are its simplicity, the thorough cleansing of the mouth and nose, and its scope. To facilitate the operation, the thumb may be placed on the lower incisiors to keep the mouth open.

Cooling Salves.—Unna (*Ther. Monats.*) says: "Cooling salves are mixtures of fats and water, which, by continuous evaporation, withdraw heat from the skin. They are useful substitutes for the ordinary ointments. When anhydrous lanoline is mixed with fat, mixtures result that are less tenacious of water than lanoline alone, and permit evaporation."

Following are Unna's formulas:

Ungt. Refrigerans:

R.—Lanolini anhydrici 10.0
Adipis benzoin 20.0
Aquæ rosarum 30.0
Use as a cold cream.

Ungt. Refrigerans Aquæ Calcis:

R.—Lanolini andydrici 10.0
Adipis benzoin 20.0
Aquæ calcis 30.0
Use as ointment base for application to burns.

Ungt. Refrigerans Plumbi Subacetici :

R.—Lanolini anhydrici 10.0
Adipis benzoin 20.0
Liq. plumbi subacetici 30.0
Use same as Goulard's cerate.

Ungt. Refrigerans Zinci :

R.—Lanolini anhydrici 10.0
Ungt. zinci benzoin 20.0
Aquæ rosarum 30.0
Use in place of zinc ointment where simple fats are not tolerated.

Ungt. Refrigerans Pomadinum :

R.—Lanolini anhydrici 10.0
Ungt. pomadini 20.0
Aquæ destill 30.0
Use in place of ordinary pomade bases, and, if preferred, on occasion employ lime water instead of water.

Cremor Refrigerans :

R.—Lanolini anhydrici 10.0
Adipis benzoin 20.0
Aquæ rosarum 60.0

Cremor Refrigerans Aquæ Calcis :

R.—Lanolini anhydrici 10.0
Adipis benzoin 20.0
Aquæ calcis 60.0

Cremor Refrigerans Plumbi Subacetici :

R.—Lanolini anhydrici 10.0
Adipis benzoin 20.0
Liq. plumbi subacet 60.0

All the preceding formulas are intended for extemporaneous use, and the preparations should not be made for storing.—*Notes on New Remedies.*

Treatment of Obstructive Dysmenorrhœa.[1] (Thomas More Madden, M.D., F.R.C.S.Ed.)—In the recognition of obstruction from cervical stenosis as the chief cause of dysmenorrhœa, will be found the key to pathology and successful treatment of this condition in the great majority of cases. Thus in my hospital practice during the past twenty years, nearly eleven per cent. of sterility similarly caused have come under observation in a total of nine thousand gynecological cases. Of all the ailments of female existence, few give rise to more persistent suffering, or produce more disastrous effects on the general health, and even on the cerebro-nervous system, or on the moral constitution of the patient, than does well-marked obstructive dysmenorrhœa. The latter consequence is more especially evident in many cases of alcoholism, which in women may very frequently be dated from their first painful menstrual period, for the relief of which stimulants are too often improperly administered, and repeated in increasing doses, until finally, in many cases, the victim of dysmenorrhœal alcoholism becomes a habitual, and, perhaps, an incurable drunkard.

It is not my purpose here to refer to the successive improvements which have since been effected in the methods of carrying out the gradual dilatation of the cervical canal, since the introduction into practice by Simpson and Swan of sponge tents, or laminaria bougies for this purpose. No greater improvement has occurred in our branch of surgery than the replacement of these oftentimes unsatisfactory, possibly hazardous, or even fatal, and always painful procedures by the more effective means now at our disposal for the rapid expansion of this canal. Of these, perhaps, the best known and most generally employed are either Hegar's, Duke's, or Lawson Tait's dilators. I now desire to call attention to another instrument which I have designed for the same purpose, and which, I venture to hope, may be found to supply a want still recognized by the gynecologists—namely, that of a reliable and effective means of securing the rapid and permanent dilatation of the cervical canal in the treatment of stenosis, giving rise to the morbid conditions now under consideration. This instrument differs from other dilators in several respects, and, above all, in one which I consider most important—viz., in producing expansion of the canal from within outward—in other words, in imitating the natural process of expansion from the uterine cavity downward to the os uteri : whereas most other dilators, such as Hegar's, etc., act in the opposite direction. In my own hands the utility of this instrument, the expansion effected by which may be measured by the affixed index, has been fully tested in a very large number of cases of sterility and dysmenorrhœa in hospital and private practice. I may add that my dilator, which does not occupy more room than the ordinary sound when introduced, may also be used with advantage for the dilatation of the female uthera in many cases in which this procedure is indicated. This instrument has been carefully made in accordance with my directions by Messrs. Arnold and Sons, West Smithfield, London.

[1] Abstract of a paper to be read before the Berlin Congress. From advance sheets.

Summer Disturbances of Children.—There are times when it is desirable to change the food of the babies the same as we need to change the bill of fare upon our table. We must not forget that the palates of the little ones are to be consulted ; that "variety is the spice of diet" may be applied, in a mild way, even to the babies. The food that agrees with the baby to-day, or this week, or this month, may need changing next month. I present the following conclusions :

1. During the heated term keep the baby cool, but not too cool ; just cool enough. Uniformity should be the ruling thought. Babies do not enjoy extremes of anything.

2. The proper regulation of the diet, the proper degree of sleep, the proper uniform temperature, pure air, and the proper relief of thirst will enable every infant to weather the tide of the hot sultry days of mid-summer.

3. The severe intestinal diseases, and the one which is the very acmé of infantile danger—cholera infantum—may be passed serenely by if we impress upon the mothers the fact that the very first variation from the proper digestion should be corrected by the family physician, and not by the "busy-body" neighbors.

4. The mother should be impressed with the fact that the opinion of the physician is of as much importance in the matter of food as though medicine were to be administered ; in fact, it is of paramount importance, in that food is life to the child.

5. Experimentation at all times is risky, and particularly so when dealing with infants, and doubly so when the experiments are not conducted by an expert experimentalist. In the correction of disturbed digestion we should aid nature in getting rid of undigested and indigestible materials.

6. We should bear in mind the antiseptic thought.

7. We should see to it that less diet and a more digestible diet be brought into requisition.

8. During the entire period of infantile life we should protect the abdominal region against possi-

ble chilling by the wearing of a light woolen belly-bandage.

9. Relieve the thirst by good, pure water, instead of the breast or the nursing-bottle.

10. Proper rest and tranquilization of the little one is desired; above all things let it be kept away, if possible, from the heated body of the nurse or mother, who, in addition to elevating the temperature of the child by contact with her own personality, will more than likely alter each filling up with milk, proceed in an affectionate way to trot it up and down, from side to side, and in a generally gymnastic way exercise her motherly muscles in giving the little one the soothing effect of thorough agitation, resulting in that which we find at every street corner — the "milk shake." More than likely the baby will reject the particular milk shake made in that particular way, but the result is not always so fortunate. It is far better for the little one to be placed upon a recliner the bulk of the time, in a manner favorable to sleep and digestion.

11. Religious regard for cleanliness of all food utensils, refrigerators, and nursing-bottles should be insisted upon. Not less than three or four of the simplest form of bottles should be always on hand. The nursing nipples should be plain, black rubber. The handy but filthy tubular affair should be condemned *in toto*.—Love, *Memphis Med. Jour.*

THE HEAT AND ITS EFFECTS.—The heat of the last two weeks has been remarkable as occurring so early in the season, it being very rare, indeed, for fatal sunstrokes to occur in the first summer month. More than a score have already taken place in this city, while the news of the daily press informs us of a similar mortality in other cities and towns; while even those who live in the country are not exempt from the fatal effects of the sun.

Reports of sunstroke are usually of the heat-effects on adults, while the direct and indirect effects on the infant population are many times as great. Too often their main nutrient, milk, has become tainted or poisoned from the absorption of germs and gases, making it a dangerous article of food and productive of summer enteritis, or other trouble that leads to a fatal termination.

At this time of the year it is a good plan to have all milk sterilized as soon as possible. This is a very simple process, and consists in putting the milk in a clean bottle, loosely corking with a clean, new cork, and then placing the bottle in a vessel of water and heating it slowly to the boiling point, this temperature being continued for forty-five minutes; then tightly cork the bottle and set it in a cool place until needed for use.

The nutrient properties of the milk are not destroyed, or even weakened, by this process; but, for most persons, it is more easily digested and is more nourishing.

Babies, children and adults, in hot weather, should live as much as possible in the shade, where there is the freest possible circulation of pure air. Long and frequent cool baths for infants are very conducive to their health and comfort. There is nothing like a long, cool bath to relieve the discomfort of prickly or summer heat; following this with a little anointing of the creases of the skin with cold cream, vaseline, or fresh lard.

In case of looseness of the bowels, a few doses of the ordinary chalk mixture will usually furnish the desired relief. This should be given in tablespoonful doses, and after every stool. Where there is a weakening of vitality, with very great propriety and advantage, teaspoonful doses of maltine may be added to the sterilized milk; the diastatic power of maltine being capable of rendering soluble and digestible any starchy food that may be in the stomach. Starch foods, such as Irish potatoes and breads, have often been regarded as the immediate and irritating cause of infantile enteric disorders. In part this may be true; and yet these starch foods were the very ones the lacteals and absorbents were crying for, and needed to stay the waste that was going on with fatal rapidity.

Right here the inestimable value of maltine, with its diastatic solvent properties, is quickly made manifest in changing the character of the discharges, and causing an irritant factor to become one of nutrition; given in sterilized milk, the benefit of both is obtained.

In the city it is a good thing, in every possible case, to send the mother and infant out to the parks and suburbs for one, two, or three hours after sundown. The car-ride is easy; while a shawl or other garment spread on the grass will afford a genuine relief from the mother's lap or cradle.

A little instruction from the family physician to his patrons in these simples may be the means of saving many valuable lives; nor should the physician take it for granted that his clients are informed in such matters, for very intelligent people sometimes are ignorant of the plainest hygienic rules. This is especially the case in regard to the care of very young children. We recently saw an illustration of this in a very intelligent appearing mother, who did not even know how to hold her infant in positions of comfort to the babe and ease to herself. Even in such matters as this the doctor may give wholesome advice.

—*Lancet-Clinic.*

FRENCH NOTES.

BY A. E. ROUSSEL, M.D.

THE USE OF ICE IN THE SWEATS OF PHTHISIS.—Rosenbach recommends in the nocturnal sweats of phthisis a singular method which will hardly be accepted by the profession. This method consists of the application of a rubber bag of ice over the abdomen, which is allowed to remain in position several hours. Patients support this treatment very well, even when they present the usual evening exacerbation of fever. This method succeeds in cases where atropia has failed, as well as where the salicylate of sodium, finely pulverized, has been applied over the entire surface of the body.—*La Médecine Moderne.*

THE ADMINISTRATION OF THE IODIDES TO SCROFULOUS CHILDREN.—Iodine and iodoform give better results than in combination with the alkaline salts.

Tincture of Iodine.—For little children, one drop a day, diluted in a small quantity of broth.

Besnier prescribes iodoform in the following combination, which may be continued for a long time:

R.—Iodoform ..... 0 gr. 10.
Honey ..... 120 gr.

The above represents 0 gr. 005 of iodoform to the teaspoonful.

—*Le Bulletin Médical.*

MIXTURE FOR DENTAL CARIES AND ITS ATTENDING PAINS.—

R.—Chloroform ..... 5 grammes.
Laudanum of Sydenham ..... 2 "
Tincture of benzoin..... 10 "

M.—Mix in a glass-stoppered bottle. Apply on cotton to cavity of tooth.

—*Le Bulletin Médical.*

MIXTURE FOR EARACHE.—

R.—Camphorated chloral .... 5 grammes.
Glycerine ..... 30 "
Oil of sweet almonds ..... 10 "
M.—Apply with absorbent cotton.

Gentle friction may also be used on the outside; the pain disappears as if by magic.

THE USE OF MENTHOL IN CORYZA.—

R.—Powdered menthol ..... 0 gr. 20.
Hydrochlorate of cocaine ..... 0 " 10.
Powdered boric acid ..... 10 " 00.
Mix.

R.—Powdered menthol ..... 0 gr. 20.
" coffee ..... 10 " 0.
Mix. Snuff.

—*Journal de Médecine.*

THE NUTRITIVE VALUE OF BOILED MILK.—E. T. Vassilieff performed a series of experiments on six healthy adults, aged from eighteen to twenty-three years, for the purpose of comparing the relative digestibility with raw milk. Each experiment lasted six days. During the first three days the subject took raw milk alone; during the next three days boiled milk was administered. The quantity of milk each day varied from one thousand eight hundred and fifty to four thousand two hundred cubic centimeters. The author arrived at the following conclusions:

1. The assimilation of nitrogenized substances of milk is greater if the milk is not boiled. The average quantity of non-assimilated nitrogenous substances is from 6.42 to 7.62 per cent. in raw milk, and from 7.76 to 8 79 per cent. in boiled milk.

2. The same rate holds good as regards the fats. In raw milk the proportion of fatty acids non-assimilated is from 2.88 to 4.85 per cent., while, on the contrary, in boiled milk we have from 4.53 to 6.99.

3. Consequently, the nutritive value of boiled milk is inferior to that of raw milk.

—*Bulletin de Thérapeutique.*

NOTE.—The above experiments corroborate those made by Drs. N. A. Randolph and A. E. Roussel (Proceedings of the Academy of Natural Sciences, April 29, 1884), when "artificial digestions showed that milk was more readily digested when raw than when boiled. This was further confirmed by a comparative examination and weighing in over fifty cases of the contents of the stomach, after raw and boiled milk had been, in different individuals, undergoing actual gastric digestion. In these cases, the residue found in the stomachs of those persons receiving boiled milk was greater than the similar residue found in the stomachs when raw milk had been undergoing digestion for the same length of time."

IN THE OFFICE OF THE WRONG SPECIALIST.—A physician whose specialty was skin diseases, one day saw a patient enter his office. "Strip off you clothes!" commanded the physician. "But, doctor!" expostulated the patient. "No buts!" exclaimed the doctor, who was quick tempered, "do as I bid you." The patient doffed his clothes and stood naked before the dermatologist, who, examining him closely, remarked: "My good, sir, I can detect no affection of the skin in your case." The patient smiled, and replied: "True, doctor. I came to consult you in regard to my eyes."—*Cincinnati Lancet Clinic.*

Medical News and Miscellany.

DR. GEORGE E. SHOEMAKER is enjoying life at Eagle's Mere.

DR. KLAPP, a prominent Philadelphia physician, is recreating at Cape May.

DR. S. RUSH KETCHAM makes frequent visits to the Chalfonte, Atlantic City.

DR. AND MRS. LOUIS STARR have left Devon Inn and are gone to Avon Inn, N. J.

DR. J. H. REEVES is spending a few weeks at Lake Placid, in the Adirondacks.

DR. AND MRS. N. H. TOWNSEND are spending two weeks at the Stockton, Cape May.

DR. D. W. SHELLY and family, of Ambler, Pa., are at the Richmond, Atlantic City.

X. C. SCOTT recommends iodoform ether as a local application in diphtheria.—*Med. Mirror.*

DR. A. E. ROUSSEL spends from Saturday to Monday of each week, with his family, at Cape May.

DR. MEEKHEIN, a Hindoo oculist, of Boston, was married to Miss Bella Law, of Altoona, last week.

DR. HARRY GODEY is staying at the Tyn-y-Coed, Campobillo, the fashionable resort of the Main Coast.

DR. JOSEPH BERENS, of Philadelphia, is at the Windsor Hotel, Atlantic City, accompanied by his wife.

SINCE 1866 the University of France has conferred 202 degrees on women, 35 receiving the doctor of medicine diploma.

DR. WALTER M. JAMES, a Philadelphia physician, after a pleasant stay at the Chalfonte, Atlantic City, has returned home.

FIFTY physicians sailed last week for Hamburg, on the steamer Augusta Victoria; they will attend the Congress at Berlin.

SMALL-POX is ravaging the villages between Monsonroy and Zagazig, Egypt, and the populations are being almost decimated.

DR. H. G. MCGONIGLE is under arrest, charged with complicity in the recent malpractice case in which Annie Goodwin died.

DR. JOHN D. GRISCOM died at his residence at Haverford College on Wednesday of last week; he was eighty-one years of age.

AMMINOL gas is recommended by Klein as the best agent for rendering sewage innocuous. It deodorizes and sterilizes in about an hour.

LEPROSY was introduced on Anticosti Island by several families infected with the disease moving there from Caraquet, New Brunswick.

MRS. ADOIN WUCHTER, of White Hall, Pa., has not eaten food for one hundred and twenty days; she is suffering from cancer of the pharynx.

J. J. LAWRENCE, A.M., M.D., of St. Louis, is at the White Sulphur for the summer. He is editor and proprietor of the *Medical Brief of England and America.*

THE first of the "Health Talks" was held Wednesday evening, at 1229 Chestnut street, by Dr. A. Victoria Scott, upon "First Aid to the Injured."

DR. BUNTING, of East Mauch Chunk, a retired physician, with his sister, Mrs. M. B. Wolff, of Philadelphia, is spending the season at the Clifton, Asbury Park.

THE evil effects of tobacco may be avoided by introducing into the pipe or cigar holder a piece of cotton wool steeped in a five to ten per cent. solution of pyrogallic acid.

A BILL has been introduced by Senator Evarts, directing the Secretary of the Treasury to pay to Dr. Mary Walker ten thousand dollars, to re-imburse her for her services as an assistant-surgeon during the late war.

SOMEWHERE in the Arabian Nights is the description of a mechanical bird that sang sweetly, but only one song. The proposition to phonograph the song of real birds puts the Arabian idea into better shape than the original.

DR. E. SALMON, United States Veterinary Inspector, and Inspectors Drs. W. H. Wray, A. D. Melorn, and J. T. Ryder, have sailed for Europe to make arrangements for the examination of cattle as they are landed from American ports.

THE National Women's Health Association of America was organized last week, with Dr. Caroline Dodson as President; its object is to bring the medical profession into closer relation with the laity by the discussion of health topics.

DR. MACAN, of Dublin, married a Mrs. Lynch, thinking her to be a wealthy American widow; whereas she was the deserted wife of a laborer. The latter turned up and sued the doctor for damages, but the jury awarded him one farthing.

THE authorities of Upper Manche, in France, thinking that certain maladies are propagated by milk, have introduced an act which authorizes the health officers to demand of the diarymen a list of their customers, that the truth of these reports may be ascertained.

AFTER an illness of two months, Dr. Jacob Roberts died July 20, at his residence, 2033 Green street. The deceased received a stroke of paralysis at that time. He was in his fifty-fourth year. The doctor, a few years ago, was medical examiner for a number of insurance beneficial societies.

"OH, mommer, mommer!" yelled a little darkey, as he saw the militia on the way to camp to-day; "what's them sojers?" "Sojers, chile?" exclaimed the mother; "what you talkin' 'bout? Dem ain't sojers; dem's de District malaria."

—*Washington Star.*

THE beauties of proprietary journalism are graphically illustrated by those two valuable journals, *Merck's Bulletin* and Lehn & Fink's *Notes on New Remedies*. Merck's journal has glowing accounts of the wonderful effects produced by orexin and pyoctanin; while L. & F.'s paper discredits them altogether. The latter, however, finds the dawn of a better day, the promise of the "good time coming," in thiol and its compounds. It is hardly necessary to add that Merck sells the articles he praises, and L. & F. deal in thiol.

THE VALE OF CASHMERE is not quite as nice in reality as it is in poetry. The people are filthy; parasitic skin diseases are common, as well as intestinal worms. The climate is very hot in summer and very cold in winter. Malaria, rheumatism, and pneumonia are common. Leprosy is rife; and the great scourge is syphilis.

RUSSIA is endeavoring to stamp out syphilis. In each district a special doctor is appointed to look after this disease exclusively, treat it, and enforce sanitary precautions. Special travelling dispensaries are provided, to bring medical aid to the sufferers, and pecuniary aid is given to the families of syphilitics who are confined to the hospitals.

THE Philadelphia Lying-in Charity and Nurse School, S. W. corner Eleventh and Cherry streets, is now open for the reception of patients and for the admission of pupils to the nurse class. During the month of June a number of women were confined, whose temperatures, in every case, ran a normal course up to the time of their discharge.

THE *N. E. Med. Monthly* says, editorially, that there are not twenty medical women in New England today who are making a living by the practice of medicine.

This may be true; but there are more than that number in Philadelphia who are making a fair living by the useful and honorable practice of medicine.

DURING May 146 persons were treated at the Pasteur Institute, Paris. Of these 37 had been bitten by animals whose rabidity had been proved experimentally; 91 by animals pronounced rabid after an examination by veterinarians; 18 bitten by dogs suspected of being rabid. The wounds were from dogs in 137 cases, from cats in 8, and once from a man.

A BILL has been reported to the French Parliament which prohibits foreign physicians practising medicine in France unless they have received the degree of a French faculty. No person can practise dentistry unless he has the physician's diploma or a special diploma as dentist, issued by the French government after a course of study and an examination.

A MOSLEM woman went to Illinois to have her throat examined, but refused to let the doctor use the iron tongue presser, on the ground that in Ramadan it is forbidden to let anything "pass one's lips." She yield only when he had proved to her that the instrument contained absolutely no nourishment, but she was as adamant when he proposed to spray her throat with medicated water.

PROF. P. D. KEYSER, Dean of the Medico-Chirurgical College and member of the Board of Health of this city, sailed, July 19, for Europe, to attend the Tenth International Medical Congress. At the same time he is delegated by the Mayor to examine into the matter of the disposal of the garbage and such matters in large cities, which has got to be a question of great moment at this time.

A DREADFUL TOOTHACHE.—Men will do almost anything when suffering from toothache. M. X. was one day attacked on a railroad train, and suffered the wildest tortures. "Ah!" cried he to one of his friends who was traveling with him, "if I only had a piece of cotton for my tooth; but, unfortunately —" here he uttered a cry of joy. "Saved! saved!" and pulled some cotton from his neighbor's ear.

DR. THOMPSON, of Northampton, Mass., died on the 11th of July, and his sanitarium has been closed.

WE are informed that the item relating to Richmond, Va., in a recent issue, was not wholly accurate. She has a free city dispensary, but no city hospital.

THE steamship "Da Bourgogne," which arrived last Saturday, had a case of small-pox on board; as he was the cabin steward, all the passengers were vaccinated.

DR. H. P. WHARTON and wife sailed for Boston yesterday, on the steamship "Indian," the new steamer of the Boston Steamship Company's line. Dr. Donnellan also sailed for the same place.

THE Board of Health of Norristown has received a report from Dr. Charles Cresson, in which he says that the water supply of the town is polluted by cesspool drainage, and is utterly unfit for household use.

DR. W. W. POTTER, in the New York *Obstetrical Journal* for July, speaks of the Woman's Hospital, of Brooklyn, as Dr. May A. Dixon-Jones' private hospital. This is a mistake, as it is an incorporated public hospital.

THE proposal to open the hospital appointments of England to Scotch and Irish graduates, has been rejected by a large majority. Privileges seem good in English eyes, and English hands do not willingly loosen their grasp on any good things that once find their way into them.

THE Omaha Medical Society has appointed a committee to prosecute unqualified practitioners; of whom the city is said to be full. One effect of the registry laws of various States is to drive these persons out into unprotected States, and this has the effect of compelling these to enact similar laws.

A CASE of posthumous labor occurred at Mantua. A woman died in catalepsy; was placed in the coffin, and next morning found horribly contracted, and between the knees lay a new born child, dead. The physicians who investigated the case declare that the woman was certainly dead before the child was born.

DURING May the principal causes of death in the city of Brussels, Belgium, were: Phthisis, 47; bronchitis and pneumonia, 38; enteritis, 32; tubercular meningitis, 26; apoplexy, 22; convulsions, 21; heart disease, 21: old age, 11; suicide, 9; total from all causes, 328. Annual mortality at this rate, 21.6 per 1,000. This does not include 29 deaths of strangers.
—*Jour. de Med.*

ESTABLISHED physicians, encourage young doctors by telling how you yourself once took measles for scarlatina. Don't walk around with a profundity and overwhelmingness of manner, as though you were one of the eternal decrees. And if you have nothing to say that is encouraging, compress your lips, put your hand over your mouth and keep still.
—Rev. T. De Witt Talmage.

MAYOR EDMUNDS, editor of the Cape May *Wave*, published an item in which it was stated that a woman had been overdosed with morphine by Drs. Marcy and McCray, and her life was only saved by the arduous efforts of a homœopathist. Dr. Marcy's son gave the mayor a cowhiding.

Public functionaries ought to know enough of law to prevent their publishing statements that are libellous.

Seldom, indeed, have we experienced such a shock as we received to-day, when in that exponent of the highest culture of the age, the *Boston Medical and Surgical Journal*, we read these words: "Since finishing this article, I have visited my *two last* cases." Has the bean crop proved a failure, or is the blood of the Puritans so diluted with later importations that it can no longer prompt the writing of good English?

WHAT wonderful things occur in America. The *Hospital Gazette* says that in America women doctors are allowed to wear men's clothes, and adds: "We cannot say how many other lady doctors (besides Mary Walker) have thrown aside women's attire in favor of that of men." We can supply this hiatus in the knowledge of our bright contemporary by informing him that not one of our female physicians has followed Mary's example.

IN most cases inebriety means bankruptcy of physical and mental strength, and an effort to conceal it by the narcotic action of alcohol. The natural and acquired limitations of health have been exceeded, and weakness and pain follow. Alcohol covers this up by numbing and paralyzing the protests of the exhausted nerves. A new disease comes on, of inebriety, and a profound paralysis of the entire nervous system follows.—*Jour. of Inebriety.*

THE New York Medical Practice Law, approved June 4, contains the following important provisions:

It reaffirms the State's rights to regulate the qualifications of practitioners of medicine.

It requires a satisfactory preliminary education as a condition to matriculation.

It provides a definite and uniform standard of examinations for graduates.

It divorces medical teaching from the licensing power.

It compels three years' attendance at the medical colleges.—*Jour. Am. Med. Asso.*

THE managers of the Kensington Hospital for Women, Diamond street, opposite Norris Square, are looking for a site upon which to build a new hospital next fall. Efforts are being made to raise $20,000, and $10,000 has already been subscribed. The hospital was organized in 1884 for treatment of women only. It was begun with two beds, but the number has been increased to thirteen.

During the past year one hundred and fifty women were treated. It is the intention to secure an endowment of $100,000 for the institution. The work at present is being carried on in two adjoining dwellings.

THE TYPE OF IDEAL BEAUTY.—

R.—Take the *hair* of a Hindoo.
The *nose* of a Greek.
The *mouth* of the English.
The *complexion* of a German.
The *height* of a Norwegian.
The *feet* of a Chinese woman.
The *teeth* of an African.
The *arm* of a Belgian.
The *leg* of an Italian girl.
The *eye* of a Spaniard.
The *grace* of a Frenchwoman,
And you will have an American beauty.

We didn't know Max had met her. —*Max O'Rell.*

AMONG new drugs recently investigated are two of much promise, Cocillana and Naregamia Alata. The evidence thus far obtained from clinical experience would indicate that these remedies are likely to prove an important addition to the expectorants and respiratory stimulants now employed. In the spasmodic

cough of acute bronchitis, in the hacking cough of phthisis, and wherever there is marked interference with the respiratory function through accumulation of secretion of the inflamed membranes, these remedies are likely to prove efficient. Parke, Davis & Co., who have introduced these remedies, offer samples of them to physicians desiring to test them clinically, also reprints of articles concerning them, free of charge.

THE Health Board's mortality returns for the past week in New York city are as follows:

	Week Ending July 26.	*Week Ending July 19.*	*Average for Past Five Years.*
Small-pox	0	0	.7
Measles	9	11	14
Scarlet fever	4	7	10
Diphtheria	29	13	34
Whooping-cough	15	15	14
Typhoid fever	8	5	9
Typhus fever	0	0	.2
Malarial fever	3	0	5
Cerebro-spinal meningitis	3	1	3
Diarrhœal diseases	176	274	324
Diarrhœal diseases (under five years)	(161)	(241)	(285)
Heart diseases	22	40	29
Croup	11	8	11
Bronchitis	15	29	22
Pneumonia	47	47	41
Phthisis	108	96	107
Bright's and nephritis	47	43	47
Violence	47	33	32
All other causes	271	319	367.1
Total deaths	815	941	1.070
Death rate	26.02	30.05	34.15
Deaths under one year	291	401	452
Deaths under five years	418	538	635
Deaths at sixty-five years and over	66	69	—
Deaths in institutions	151	180	178
Deaths in tenements	544	655	—
Estimated populatian July 19			1,633,748
Estimated population July 26			1,634,698

WEEKLY report of interments from July 19 to 26, 1890:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Alcoholism	1		Fever, typhoid	9	1
Anæmia	1		Gangrene	1	
Apoplexy	2		Hemorrhage	6	
Bright's disease	7	1	Hernia	1	
Burns and scalds		1	Inflammation brain	2	12
Cancer	11		" bronchi	1	3
Caries of the spine	1		" heart		1
Casualties	5	2	" kidneys	2	1
Congestion of the brain	1	2	" larynx	1	
" " lungs	1	2	" lungs	8	8
Cholera infantum		44	" periton'm	3	3
" morbus	2		" s. & bowels	3	11
Cirrhosis of the liver	2		" spinal cord		1
Consumption of the lungs	33	7	Inanition	1	12
Convulsions		12	Marasmus		25
" puerperal	1		Neuralgia of the heart	1	1
Croup		2	Old age	18	
Cyanosis		5	Obstruction of the bowels	1	—
Drowned	4	2	Paralysis	2	
Debility	2	8	Scurvy	1	
Diabetes	1		Scrofula		1
Diarrhœa	5	5	Sore mouth		2
Diphtheria		4	" throat	1	
Disease of the brain	1		Tabes mesenterica		1
" " heart	16	3	Tetanus		1
" " kidneys	1		Tumor	3	
Dysentery	4	1	Ulceration of the bowes	1	
Dropsy		1	Uræmia	2	
Embolism, cerebral	1		Whooping-cough		16
Fatty degeneration of the heart	1		Wounds	1	
Fever, puerperal	1		Total	175	205
" scarlet	1	3			

THE PHILADELPHIA ACADEMY OF NATURAL SCIENCES.—Philadelphia is fortunate in the possession of an institution which, in its peculiar field, has no equal in this country and few superiors abroad; and unfortunate in its lack of appreciation or even knowledge of its special advantages. As the Academy of Natural Sciences, the institution in question, has just begun the erection of a more ample home for its scientific treasures, some account of its progress and present condition may be here in place.

This institution began its existence in a very humble way, and has, unlike its rivals, never received a cent of public aid, owing all it possesses to the liberality of the citizens of Philadelphia. It may safely be said that there is no other museum in existence comparable with that of the Academy in abundance and value of scientific material that has not been liberally aided by government money or by an ample original endowment.

Lest what is above said should be looked upon as an exaggeration, a brief statement of the extent and character of the collections in question may be given. In its representation of the feathered kingdom, for example, the museum of the Academy until recently surpassed all others; now there are three European collections with a greater number of birds. That of the Academy numbers about thirty-one thousand specimens, nearly all mounted.

In shells its collection is unrivaled, since it surpasses in this branch of natural history even the famous collection of the British Museum. The shells occupy about sixty thousand trays, and number in all more than half a million specimens. The conchologists of the Academy, who are among its most ardent students, have recently organized a society of American conchologists, which has been joined by most of the prominent students of this branch of science throughout the country.

In botany the Academy collection is of great extent and value. In flowering plants there are examples of more than thirty-five thousand species, and it is, of American herbaria, only surpassed by that made at Harvard College by the late Dr. Asa Gray, America's most distinguished botanist.

The cabinet of minerals is one of the most important in the country. It may be said that no other city in America possesses so extended, complete and valuable a series of mineral specimens, though Philadelphia is fortunate in possessing two such collections, one the property of a private collector.

In fossils, the Academy collection is one of the most important in America, and, so far as invertebrate fossils are concerned, probably the most extensive. It occupies some twenty thousand trays, and embraces some of the most valuable type specimens of our leading palæontologists.

The archæological collection, now crowded almost out of sight through lack of room for its proper display, is of high scientific value, and has but two superiors in this country. The entomological collection contains the largest series of North American insects in any museum. In other branches of science the Academy museum is little less rich and important; and it may safely be repeated that its collection of natural history specimens is among the most valuable and complete in existence.

Its library is no less valuable, being acknowledged to be the largest and most important collection of exclusively scientific works in America. In some directions, as that of conchology, it is measurably complete, no work of any value in the science being wanting. It numbers in all about thirty-five thousand valumes, including a large number of sumptuously illustrated folios, of almost incomparable value. —From an article by Charles Morris in August *Lippincott's*.

THE *Lancet* has made an extraordinary discovery which is likely to excite great interest in scientific circles. Even the comic papers appreciate the importance of the fact brought to light by the investigations of the *Lancet*. The discovery is thus alluded to in the current number of *Punch*:

According to *Mr. Punch's* sharp contemporary, the *Lancet*, the effect of bagpipe playing upon the teeth is to blunt them; in fact, in course of time, to wear them away. To the auditor the music has a contrary effect. *Mr. Punch* is able to say, from experience, that he has never listened to the National instrument of Grand Old Scotland without having his teeth set on edge.

The evil results of playing upon wind instruments upon the anatomical structures of the mouth appear strangely enough to have been overlooked. Now that the *Lancet* has directed attention to the subject, no doubt some ambitious member of the profession will give it his attention and prepare a paper for the Royal Society.—*Hospital Gazette.*

PATENT NEWS:—

TRADE-MARKS, ISSUED 22D JULY, 1890.

Artificial milk (The word "Kefyr")	A. Schnell	St. Louis, Mo.
Tonics and malt extracts (A star in outline with a circle upon the centre of the star)	Broening Bros	Lincoln, Neb.
Syrup of amorphine quinine (The word "Febriline")	Paris Medicine Co.	Paris, France.
Medicinal tablets (The word "Pan-Peptic")	Sharp & Dohme	Baltimore, Md.
Liquid ergot of rye (The word "Ergotole")	Sharp & Dohme	Baltimore, Md.
Liniment (The words "Pain Slayer")	C. Schlayer	Philadelphia, Pa.
Vegetable compound for certain diseases (The word "Kalmar")	A. Swanson	Jamestown, N. Y.
Bitters (The word "Beacon")	R. Y. McWilliams	New Orleans, La.
Carbonated beverages (The words "The Golden Key Brand" and representation of a key)	Union Bottling Co.	New York, N. Y.
Flavoring syrup for soda water	H. B. Mykrantz	Kansas City, Mo.
Compounded medicines (Heraldic garter; words: "The Home Medication Co.;" representation of a mortar and pestle, a flying dove, and the words: "Health, Purity, Beauty.")	The Home Medication Co.	New York, N. Y.
Perfumery (The word "Hasuno-hana")	J. L. Grossmith	London, England.
Pills (The words "Faber's Golden Female")	The Aphro Medicine Co.	Portland, Ore.
Remedy for dyspepsia, catarrh of the stomach, ulcers, and other microbian diseases (The word "Hydrozone")	The Drevet Manufacturing Co.	New York, N. Y.
Medicinal mixture for gonorrhœa, gleet, and all urinary troubles (The word and figures "Champion 12345")	L. Spingarn	New York, N. Y.

PATENTS, GRANTED THE 22D JULY, 1890.

Making acetic acid	I. A. F. Bang & M. C. A. Ruffin	Paris, France.
Producing bisulphites	C. Cornwell	Ypsilanti, Mich.
Bisulphite solutions	T. P. Burgess	Dedham, Mass.
Dental mold	L. F. Seeger, Jr.	Ahnapee, Wis.
Fracture apparatus	T. M. Miller	Medford, Wis.
Inhaler	J. D. Averell	Manchester, N. J.
Inhaler and respirator	H. F. Williams	Brooklyn, N. Y.
Obtaining oxygen from air	A. Brin	London, England.
Poultice-holder	C. S. Hirst	Philadelphia, Pa.
Surgical apparatus	W. L. Hendrick	Boston, Mass.
Surgical knife	G. Dittert	Neustadt, Saxony.
Surgical splint	L. Reenstierna	Boston, Mass.
Clinical thermometer case	H. G. Green	Brooklyn, N. Y.
Artificial tooth	C. H. Land	Detroit, Mich.

PATENTS, EXPIRING 22D JULY, 1890.

Abdominal supporter	J. W. Gurley	Petersburg, Va.
Breast-cup	A. M. Knapp	Lowell, Mass.
Inhaler	S. J. Shaw	Marlborough, Mass.
Milk of magnesia	Phillips & Reid,	New York, N. Y.
Medical compound	C. D. Bradley	Taunton, Mass.
Pessary	O. A. Muncaster	Washington, D. C.
Soda-water cooler	W. Gee	New York, N. Y.
Soda-water dispensing apparatus	J. Matthews	New York, N. Y.

LABELS.

Adhesive plaster (Title: "Casey's")	F. M. Casey	Mount Vernon, N. Y.
Title: "Davis' St. Vitus Dance Specific."	G. H. Davis	Philadelphia, Pa.

—CHARLES J. GOOCH, *Patent Attorney.*

SANTA FÉ RAILWAY EMPLOYÉS' ASSOCIATION.—From the annual report of the Association for 1889 the following items may prove of interest:

The total number of patients under treatment during the year was 17,390, as follows: 14,271 medical, and 3,119 surgical cases. As may be expected, the laborers constitute the largest number, 4,059; the smallest number under treatment were painters, 107; trainmen of all sorts constituting 4,584; 30 nationalities are represented.

Under the head of general diseases, 5,703 cases were treated, including malaria, 3,172; intermittent fever, 867; la grippe, 35; rheumatism, 649; and 277 cases of vaccination.

Respiratory diseases took 2,814 cases, of which 1,284 were bronchitis; 9, diphtheria; 135, pneumonia; 105, pleurisy; 28, phthisis, and 290, tonsillitis.

Digestive system diseases include 3,709 cases, 590 diarrhœa; dysentery, 484; dyspepsia, 620, and 1 case of intussusception of the bowels.

Skin diseases claim 309 cases, of which 141 were due to eczema.

Under nervous diseases were 992 cases, of which locomotor ataxia takes 3; neuralgia, 341; writer's cramp, 1.

There were 22 cases of heart lesions, 229 of the genito-urinary system, 410 of the eye, and 83 of the ear.

Under the surgical cases, there were 2,745 cases of simple fracture of all kinds, including 6 Colles fractures, 2 of the pelvis, 13 of the skull, and 1 of the spine. The were 34 cases of compound fractures of all kinds, including one crushed thorax, 419 sprains, 1,270 contusions, 37 dislocations, 162 cuts, 162 burns and scalds, 4 varicose ulcers, 23 hernia, synovitis, 17, killed, 29.

Besides the officers and those in charge of the hospitals, 127 local surgeons are employed to look after the sick and injured at various points.

Emergency boxes have been placed in all the way cars of freight trains on the system east of the Missouri River, and it is proposed to extend them to the entire system.

In the hospitals, 601 cases were treated, with 18 deaths; there was an average of 45 patients daily; 84,932 meals were given, 64,784 pieces washed, 6,661 prescriptions filled, and 140 operations performed.

TO CONTRIBUTORS AND CORRESPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy & Marine Hospital Service.

Changes in the Medical Corps of the U. S. Navy for the two weeks ending July 26, 1890.

WHITFIELD, JAMES M., Assistant-Surgeon. Ordered to U. S. S. "Ajax," and other monitors.

WOOLVERTON, THEORON, Medical Inspector. Ordered to the U. S. S. "Philadelphia."

LOVERING, P. A., Passed Assistant-Surgeon. Detached from the U. S. Receiving-Ship "Wabash," and to the U. S. S. "Philadelphia."

BAILEY, T. B., Assistant-Surgeon. Detached from the U.S. Receiving-Ship "St. Louis," and to the U.S.S. "Philadelphia."

WHITE, S. S., Passed Assistant-Surgeon. Ordered to the Marine Rendezvous, San Francisco, Cal.

Medical Index.

A weekly list of the more important and practical articles appearing in the contemporary foreign and domestic medical journals.

Dwellings of the laboring classes in their relations to infant mortality, White. Brooklyn Med. Jour.
Dangers from necrosed teeth, Beach. *Ibid.*
Disorders of sleep, insomnia, Folsom. Boston Med. Surg. J.
Diseases of eye for non-specialists, Wood. N. Amer. Pract.
De la castration pour corps fibreux, Pozzi. La Méd. Mod.
Deux cas de pseudo-paralysie syphilitique, suivis de guérison, Comby. La France Mêd.
Della cirrosi alcoolica ipertrofica. La Rif. Med.
Diagnosis and treatment of metrorrhagia. Obstet. Gaz.
De l'antisepsie en gynecologie et en obstetrique, Auvard. Archives de Tocologie.
Death, its modes, signs and premonitions, Bradnack. Buffalo Med. and Surg. Jour.
Dengue fever and influenza, comparison between, Sandwith. The Lancet.
Deux cas de dechirure de la rate, dechirure du mesentere, empoisonnement par l'oxyde de carbone, Laude. Jour. de Méd. de Bordeaux.
L'influenza nel reggimento cavallerio caserta, Trombetta. Giornale Medico.
L'influenza nell collegio militare di Firenze, Morossi. *Ibid.*
La prophylaxie dn cholera. Le Bulletin Médical.
L'hydarthrose blennorragique et son traitement, Duplay. *Ib.*
Luxations doubles de l'astragale, Rochet. Revue d'Orthop.
Leiter incandescent lamp urethroscope in chronic urethral discharges, Deaver. Jour. of Amer. Med. Ass'n.
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PAGE

ORIGINAL ARTICLES.

THE IMPORTANCE OF SURGICAL MEANS APPLIED TO THE NASO-PHARYNX IN THE RELIEF OF NASO PHARYNGEAL AND MIDDLE EAR CATARRH. By C. W. Richardson, M.D, Washington, D. C. - - - - - - - - 121
MENTHOL IN DISEASES OF THE AIR PASSAGES. By Seth S. Bishop, M.D., Chicago, 123
ETIOLGY AND TREATMENT OF PNEUMONIA. By L. P. Deahofe, M.D., Potsdam, Ohio - 125
TREATMENT OF INEBRIATES LEGALLY. By T. D. Crothers, M D., Hartford, Conn. - - 126

THE POLYCLINIC.

PHILADELPHIA HOSPITAL:
Epithelioma of the Lip. *Laplace* - - - - 127

EDITORIALS.

THE SALE OF POISONS - - - - - - - - - 128
EXALGINE - - - - - - - - - - - - - 128

PAGE

ANNOTATIONS.

Transfusion of Blood in Typhoid Fever - - 125
Mussel Poisoning - - - - - - - - - - 129
Cholera - - - - - - - - - - - - - - 129

LETTERS TO THE EDITOR.

Pyoctanin - - - - - - - - - - - - - 129

BOOK REVIEWS.

Recollections of General Grant. *Childs* - - 12,

PAMPHLETS - - - - - - - - - - - 129

THE MEDICAL DIGEST.

High Specific Gravity in Urine. *Linsley* - - 130
Cerebral Hemorrhage. *Oppenheim* - - - - 130
A Practical Sugar Test. *Nothnagel* - - - 130
Double Ovariotomy. *Myrtle* - - - - - - 130
Causes of Hæmaturia. *Harrison* - - - - 130
Marvels of Ichthyol. *Frennel* - - - - - 130

PAGE

Physical Peculiarities and the Heredity of Prostitutes and Female Thieves. *Tarnowski* - - - - - - - - - - - - - - - 130
Nervous Symptoms Consecutive to Double Castration. *Med. Press* - - - - - - - - 130
Fatigue and Experimental Hysteria. *Fêré*, 130
Prolapse of the Ovary. *Duke* - - - - - - 131
The Transfer of Disease by Magnetism. *Luys* - - - - - - - - - - - - - - - 131
FRENCH NOTES. *Roussel* - - - - - - - - 132
Treatment of Insomnia in Children. *Simon* - - - - - - - - - - - - - - - 132

MEDICAL NEWS AND MISCELLANY, 132

ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - - 135

MEDICAL INDEX - - - - - - - - - - 136

NOTES AND ITEMS - - - - - - - iv, xiv

Original Articles.

THE IMPORTANCE OF SURGICAL MEANS APPLIED TO THE NASO-PHARYNX IN THE RELIEF OF NASO-PHARYNGEAL AND MIDDLE EAR CATARRH.[1]

BY C. W. RICHARDSON, M.D.,
WASHINGTON, D. C.

AS a preface to the few remarks I am about to make, I wish to offer a few words in explanation; not in apology. During the early part of the present year, at the invitation of your secretary, I furnished him with the title of the present paper. Shortly after having written to Dr. Potter, I received a copy of the *Journal of the Respiratory Organs*, containing that most excellent paper read by Dr. Daly, before the New York Medical Society, carrying out, to some extent, the very idea and train of thought I intended following in presenting this subject for your consideration. I immediately wrote Dr. Potter requesting his permission to change my subject, to which he kindly consented, but, at the same time, urging me to continue its agitation. Concluding that the doctor's advice was well worthy of consideration, I decided to adhere to my original intention, and in a feeble way, lend my aid to the grand piece of "missionary work" already begun by the able exponent of rhinological wisdom, Dr. W. H. Daly.

In the presentation of this subject to-day, it is not my intention to array the rhinologist against the otologist, but simply to insist upon the necessity of the thorough surgical treatment of certain conditions existing within the naso-pharyngeal cavities as an aid to the radical removal of, and in preventing, the recurrence of certain affections of the middle ear. During the past decade, the intimate relationship existing between, or rather dependence of, diseases of the middle ear upon those of the naso-pharynx, has been so thoroughly recognized as to cause a great increase to that class of specialists, whose education from its incipiency has been such as to thoroughly imbue them with these ideas; whose education in the ear has been as thorough as in that of the nose and pharynx; whose education has been such as to cause them to view the diseases of the ear, in many cases, to be dependent upon an existing disease of these cavities; whose education has caused them to search for these causes, to remove them when present, and thus thoroughly to relieve their patients—to this class of practitioners, and as an humble exponent of these ideas, I claim to belong. Dr. Daly, in his presentation of the subject, has handled the otologist from a rhinological point of view; and the otologists have accused him, and indirectly the rhinal surgeons, with an incomplete knowledge of diseases of the ear. These exponents having clashed arms, it now remains for the auro-rhinologist to attempt to bring these warring factions to terms; bring harmony out of discord, and aid in showing the absolute necessity of the otologist being more of a rhinologist than ophthalmologist. I suggest that we aid in this good work because we are unbiased; we cannot be accused of wanting in knowledge of the use of the tuning fork; because, while being conservative, we do not hesitate in resorting to operative interference, when demanded, and, on account of having many ear cases presented primarily, we are better able to judge the relationship existing between diseases of the ear and those of the naso-pharynx. During my short experience as an auro rhinologist, it has been my lot to have had under observation a number of aural cases that have previously sought relief at the hands of skilled auro-

[1] Read at the Nashville meeting of the American Medical Association.

ophthalmologists in this vicinity and neighboring cities. These cases may be divided into two great classes, viz.: Acute and chronic inflammations of the middle ear cavity. Among the acute cases were many of recurring middle ear catarrh, non-suppurative and suppurative middle ear inflammations. In all the above mentioned acute affections there existed various affections of the nasal and pharyngeal cavities, in many of which their existence was so patent as hardly to escape the eye of the most non-observing layman. In some cases the aurist, who has been usually an ophthalmologist, while recognizing some disturbance of the normal functions of the naso-pharyngeal cavity, failing to appreciate its nature, has applied for its relief unscientific, inadequate, or inappropriate treatment, showing an utter disregard, want of knowledge, and frequent dread of the only proper therapeutic measures for the relief of the condition present, naso-pharyngeal surgery. The surgical treatment of these cavities would not have in view only the restoration of them to a normal condition, but also, by the light of our present knowledge, aid in a restoration of the impaired organ of audition, and, acting as a prophylactic agent, by removing the cause, prevent the recurrence of subsequent attacks. In many of the acute affections of the ear, in which there had been numerous recurrences, in the hands of otologists, I have almost universally found some affection of the naso-pharyngeal cavity the relief of which, by operative measures, not only aided in effecting a rapid recovery, but also produced an absolute immunity from subsequent attacks. These facts are so thoroughly acknowledged by all auro-rhinologists as to have become aphorisms, to cause me almost to apologize for having given them mention; but having done so I shall cite several cases to illustrate this point.

About two years ago I had placed under my care, by an otologist of Washington, a young woman who had frequent recurring attacks of middle ear catarrh. One attack would hardly be relieved before another would supervene. For years she had been under medical care for this annoying deafness, but invariably found that with exertion of all due care she was certain to find her efforts futile. My friend sent her to me that I might treat her throat, at the same time advising me to continue attention to the ears. He was the first medical attendant who had ever suggested the care to nose and pharynx. The pharynx was, with its thick padding of mucus, the most disgusting sight I have ever seen, the tonsils were enormously hypertrophied; the vault studded with stalactite-like hypertrophies; and the anterior and post-nasal orifices blocked by hypertrophies of inferior turbinates. The whole picture was changed within a few days by inter-nasal and pharyngeal surgery. While the patient was recovering from effects of active surgical procedures, several inflations were made, and she was discharged, within a short period, with no catarrh of nose, pharynx or ear, and so remains at present writing. Some time ago a patient was presented to me for examination. She had been under the care of various auro-ophthalmologists for several years for a chronic suppuration of the right middle ear, but not having obtained relief her parents had desisted in treatment. I found considerable glandular hypertrophy at vault of pharynx, and suggested the removal of the same as a possible means of aiding in the relief of the suppuration of the ear; as the child was about to leave town they did not consent to immediate treatment. Within six months an acute suppurative inflammation having occurred in the left ear, the patient was placed under my care. Removal of glandular hypertrophies at vault, with mild but effective treatment to ears, was followed within a few days with cessation of suppuration in the old, and within a couple of weeks in the recently affected one. I have seen this patient lately; hearing normal and no suppuration. Several cases of chronic middle ear catarrh have been under observation, that have received the most decided negative prognosis from distinguished auro-ophthalmologists; in these I have found naso-pharyngeal disease of an obstructive character, the removal of which, with simultaneous and subsequent use of inflation, has been attended with the most satisfactory results. Acute inflammation of the middle ear I seldom see without finding some obstructive disease of the nasal cavity or glandular hypertrophy at the vault of the pharynx.

The simple treatment of the ear affection without any attempt to remove the producing cause, as is the course adopted by the majority of aurists, leaves the case half treated; it leaves the patient, to say the least, open to a recurrence at any moment. It would be unnecessary to give a long citation of individual cases drifting into our hands, who would show the insufficiency of simple otological treatment. In speaking as I do, I do so only with regard to the locality in which I live and its environs. In Washington and Baltimore, the auro-ophthalmologist does not seem to recognize the great importance of naso-pharyngeal diseases, as productive of affections of the ears. If they do, their actions belie their opinions, and one must acknowledge that they are rhinal therapeutic-nihilists. Obstructive disease in the naso-pharynx, hypertrophies, polypismus, deflected septi and hypertrophial glandular tissue at vault of pharynx, are the conditions usually observed by me as demanding treatment in most of the cases coming under my observation. The *modus operandi* in the production of disease of the middle ear, through obstructive disease of the naso-pharynx, whether by interfering with the ventilation of the middle ear, by extension of catarrhal inflammation, by inflammatory filtration into or paralysis of tubal muscles, are questions of minor importance as compared to the great truth, now universally acknowledged, that these conditions are productive of the affections mentioned; and that the only consistent, scientific, rational, and, therefore, proper treatment, consists in the primary removal of the causative agent as essential to the secondary treatment of disease thereby produced. Even should the above assertion be challenged in general, or as regards any individual case, one cannot but admit that many of these cases, in the hands of the aurist and auro-ophthalmologist are allowed to continue suffering more or less inconvenience from unpleasant naso-pharyngeal affections, which the auro-rhinologist would at once recognize, and, simultaneously with the aural affection, relieve.

I cannot agree with the statement I have several times noted, made by a distinguished New York specialist, that atrophic rather than hypertrophic nasal catarrh is productive of the major proportion of middle-ear affections. Atrophic nasal catarrh, in which the nasal passages are extremely patulous, has presented the smallest per cent. of middle ear affections in my practice. In showing how inadequate the ordinary treatment of ear affections under the care of the auro ophthalmologist is, I do not wish it to be understood that I am to any extent an aural nihilist. I am afraid a great many of my medical confrères are claiming too much for the independent use of the forceps, cautery, snare, drills and saw. I doubt very

much of their curing all the ills to which the ear is subject, unless they at the same time resort to a judicious use of aural therapeutic measures. Firmly convinced, as I am, of the value of naso-pharyngeal surgical methods, I have not yet thrown away the leech, douche, paracentesis knife, Politzer's bag or catheter; our only safeguard is the judicious use of these means and the acknowledgment of their just therapeutic value. On the other hand, we must acknowledge the increased successfulness, or aid to success, in otological work rendered by the rhinal surgeon; but while acknowledging these achievements, one must remember that there are a vast number of aural cases falling under our observation thoroughly independent of any change within the naso-pharyngeal cavity; the affection in the one being synchronous with, but independent of, the affection in the other; the relief of the one not arresting the retrogressive progress of the other. It is almost unnecessary for me to state that I refer to sclerotic changes within the tympanic cavity. These cases are usually present in persons manifesting little or no change in naso-pharyngeal cavity, with patulous tubes. What aid can the rhinologist here furnish? If the patient is to have relief it must be through aural therapeutic measures employed in the hand of the skilled otologist. It is nonsense for one to agitate ideas having in view the condemnation of otological therapeutic methods—they have a vast field of usefulness. The otological surgeon existed and filled a field of usefulness before the rhinal surgeon was born. It is not a question of the younger but more thriving member devouring, as it were, the one which it claims to have so sorely afflicted, but rather a question of the more thorough amalgamation of the two branches; a more thorough appreciation of the dependence of aural affections upon naso-pharyngeal disease; a more thorough application of rhinal therapeutic methods in the treatment of aural affections by the aural surgeon—the aurist becoming more of a rhinologist and the rhinologist more of an aurist; a more thorough inculcation of these views in the aural and rhinal clinics of this country and elsewhere. Contrary to expressed views, one does not find either in aural clinics that careful examination and treatment of the naso-pharyngeal cavity as is carried out in rhinal clinics, nor in rhinal clinics that same care and attention to the ears that one finds in aural clinics; and appreciation of the inadequacy of the routine treatment of the case as resorted to by the auro-ophthalmologist.

Independent of the direct relationship and import of naso-pharyngeal surgery, as applied for the relief of affections of the middle ear, it also has an important direct action when applied for the relief of naso-pharyngeal catarrh. Coming before a body of experts in naso-pharyngeal diseases, it would seem almost unnecessary for me to refer to the important rôle that glandular hypertrophy and bursitis play in the production and continuance of naso-pharyngeal discharges. It would seem unnecessary, I say, to call attention to these important facts were they universally acknowledged and duly regarded. Most authorities agree and acknowledge that glandular hypertrophy at the vault of pharynx, when existing in sufficient quantity to cause more or less interference with nasal respiration, should be removed; but there is a want of unanimity when this tissue exists only in small quantity. There may be no doubt in the minds of many as regards the advisability of the thorough removal of all glandular tissue at the vault, possibly thinking that its existence there implies that it must perform some physiological function. In the normal condition, as shown by numerous examinations upon the living and dead, there exists no such excess of glandular tissue. I have been able, in a number of cases, to demonstrate the important rôle slight glandular hypertrophy and projecting knobs of adenoid tissue play in the production and in the continuation of naso-pharyngeal catarrh.

There exists, also, another condition at the vault in which there is what might be called a hypertrophical condition of the mucous membrane. The mucus surface, as noted at the choanæ, appears to be thrown into folds, and projects slightly beyond what appears to be normal. It is deeply injected, being well demarkated from the contiguous mucous surface; in other words, having very much the appearance of granulation tissue, as seen in the aural portion of the pharynx. The lateral chains of lymphatic tissue occasionally add an element. Bursitis may or may not be acknowledged. There exists a condition at vault that bears all semblance to this condition, and the influence it has in the production of excessive post-nasal secretion cannot be overlooked or underestimated. While insisting upon the important bearing the conditions just mentioned have in the production of excessive post-nasal secretions, and their removal by surgical procedure in the cessation of the same, I do not wish it to be understood that I offer them as the sole factors, or for an instant overlook other important elements in the production of this affection. What I wish to emphasize is the frequent dependence of post-nasal secretion upon local pathological changes such as those just mentioned, the removal of which will be attended with beneficial results. I do not insist upon any special surgical procedure—the forceps may be used with advantage in one case, the contrary in another.

In closing, I must thank you for your kind attention, and apologize for the rambling nature of my remarks and want of strict adherence to the text as given.

MENTHOL IN DISEASES OF THE AIR PASSAGES.[1]

By SETH S. BISHOP, M.D.,
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MENTHOL is a peppermint camphor, a powerful antiseptic and local anodyne. I have used it considerably in a variety of diseases, and believe its remedial properties entitle it to an important place in the work of general practitioners and specialists alike.

To speak systematically concerning the effects of menthol on the upper respiratory tract, we will begin with the nose. Acute coryza or influenza in the first stage can be stopped by inhalations or sprays. If the attack is a light one nothing is necessary beyond smelling the crystals contained in a wide-mouth vial or tube. I have cut short colds in the head at their onset by such inhalations of thirty minutes' duration. This, of course, was before the nasal irritation had passed to the stage of inflammation. The sense of fullness and constriction about the nose and frontal sinuses, and the flow of mucus, disappeared, the nostrils opened for the free passage of air, and complete relief followed. This remedy is well adapted for such inhalations on account of its being very volatile.

In the later stages, where an actual inflammation existed before treatment began, it was necessary to use sprays of menthol dissolved in liquid albolene in

[1] Read before the Illinois State Medical Society, May, 1890

order to protect the membrane and keep the medicine in contact with the diseased surface a long time.

The strongest solution I have used was 20 per cent., but that is too powerful for most individuals; 5 or 10 per cent. solutions are as strong as people generally will bear without discomfort. The sense of heat is considerable at first, and it contributes to the comfort of patients materially to instruct them to take several prolonged inhalations of air directly after using the sprays. This converts the burning sensation into one of agreeable coolness.

Even in chronic cases of nasal catarrh I have been able to open a closed nasal passage by one or two treatments with a 15 per cent. solution, and afford great relief to mouth-breathers. Whenever a patient comes with turbinate bodies so enlarged as to obstruct the passage of air and prevent the entrance of sprays through the nostril to the throat, I resort at once to this remedy, with the effect of shrinking the engorged tissue and restoring the natural air channel.

It is advantageous to prescribe these inhalations in one form or another for persons who take cold easily, so that they can employ them at home whenever a cold is coming on. A drachm or two of the crystals in a wide-mouth vial with a metallic screw cap, or a glass tube, is a convenient device. A pledget of cotton should be pressed into the vial to prevent the menthol from working out and coming in contact with the nose; otherwise it will occasion smarting sensations wherever it touches the nostrils. If a large glass tube is used, both ends should be plugged with cotton-wool. As menthol does not melt at a temperature below 98° F., it can be carried in the pocket for ready and frequent use; when not in use, however, it should be corked, to prevent evaporation.

In prescribing it for patients to use in atomizers, it is best to use it not stronger than a 5 or 10 per cent. solution in oil or fluid vaseline. Albolene is preferable to vaseline, for the latter alone often proves irritating to the Schneiderian membrane.

In chronic hypertrophic rhinitis, with foul-smelling discharge, menthol is sufficiently antiseptic and corrective to lessen the amount of discharge and banish the odor. The peppermint aroma is usually agreeable, and more especially so when it supplants the stench of decay.

In atrophic catarrh the stimulating properties of this inhalant, combined with the emollient and protective qualities of albolene, affords a means of speedy improvement.

Pruritus nasi yields to nothing more readily than to menthol but cocaine, and in this connection, if it will not be too flagrant a tax upon our sense of continuity to pass from the upper air passages to the seat of pruritus ani, it will enable me to remark parenthetically that menthol is vastly superior to cocaine in its effects here. I have seen the most exquisitely torturing, itching and burning of the anus relieved in a few minutes by a 20 per cent. solution of this simple drug, after other ordinary and extraordinary remedies had utterly failed.

In laryngitis, not dependent on a rheumatic condition, menthol proves valuable. Even in rheumatic laryngitis it is an efficient adjunct to salicylate of sodium, iodide of potassium, etc. In simple acute laryngitis, if used in the early stage, it will relieve as it does in coryza, but the spray is the most effectual. When the soreness of the larynx and trachea and the hoarseness appear, a few inhalations of the spray often nip the attack in the bud. It relieves the hoarseness and imparts a smooth, reed like timbre to the voice. In advanced cases several inhalations of the spray should be used in the course of a day, and a continuous effect is often advantageous. This can be had by keeping a saucer heated in the patient's room, and dropping a few of the crystals on it occasionally during the day and night. They melt readily at a low temperature, and fill the atmosphere with their penetrating fumes.

In whooping-cough I have had patients inhale it constantly from a cloth saturated with the solution placed beneath the chin. Besides this I have sprayed the nose and throat daily, taking care to project the spray into the throat just at the instant of inhalation. The paroxysms of cough were lessened in intensity and frequency, and the course of the disease appeared to be shortened.

Bronchitis does better under these inhalations than with other topical applications or with internal medication alone. The spray should be taken following a forced exhalation, and retained as long as possible in the bronchial tubes before emptying the lungs preparatory to the next inhalation. This brings the fine, smoke like vapor in contact with the diseased surface. It is best to have patients exhale it through the nose, and it can readily be seen pouring out of the nostrils after a forced retention for several seconds, showing that the respiratory tract is thoroughly medicated. The effect is distinctly felt deep in the chest.

In catarrhal conditions of the Eustachian tube and middle ear I have employed menthol on account of its effect in relieving turgescence and stenosis in the nasal passages. And by the grace of the Eustachian tube we may properly speak of the tympanic cavity as a part of the air passages. I use the menthol in Buttle's inflator in the same manner as the iodine crystals, substituting cotton for sponges. If a stronger impression is desired, I use the liquid albolene solution. Simply throwing the spray against the Eustachian orifices with the De Vilbiss atomizer results in a thorough impression on the tube and tympanum.

Suppurative inflammation of the middle ear yields readily to the menthol treatment. Long standing cases have healed rapidly after an initiatory use of the 20 per cent. solution I have just seen several cases of this kind in which the purulent discharge ceased after a few such treatments.

Furunculosis of the ear has been in my hands more amenable to this than to any other remedy. A pledget of cotton, moistened with a 20 per cent. solution, should be so placed as to keep it in contact with the center of the furuncle. A warm or burning sensation follows, but soon gives place to one of coolness. The pain is relieved, the bacteria destroyed, and the swelling and discharge dissipated.

I have not yet tried it in hay fever, but have taken steps to have it given a thorough trial during the coming summer by the members of the United States Hay Fever Association.

In corroboration of my account of the behavior of menthol in my practice, I will quote briefly from a few authors on the subject:

Mr. Lennox Brown says: "Menthol contracts the capillary blood-vessels of the nose and throat, arrests sneezing and nasal discharge, stops pain and fullness of the head, and kills the microbe of infection. When the nasal discharge is excessive, it is checked; when deficient and thickened, as in hypertrophic rhinitis, its healthy character is restored, and when it is arrested, inspissated, and malodorous, as in atrophic rhinitis, fluidity is promoted and the foul smell corrected."

William Hill, of London, claims to have found menthol to be an excellent substitute for cocaine in hay fever.

Jones is authority for the statement that inhalations of menthol have proved useful in asthma. He used a 20 per cent. solution in olive oil, and relieved a case that resisted all the common remedies.

Nyes says these inhalations facilitate and diminish the expectoration in chronic bronchitis, and relieves the cough.

Potter and Knight have reported cases of improvement in laryngeal phthisis; and Rosenberg and others claim a large percentage of cures from the local application of menthol.

It is not my purpose to speak of the effects of this drug when administered internally, or when applied to the cutaneous surfaces for neuralgia, etc.; but excluding these uses, which are yet in the experimental stage, we are justified in according this remedy an important place in therapeutics.

70 State Street.

ETIOLOGY AND TREATMENT OF PNEUMONIA.[1]

By L. P. DEAHOFE, M.D.,
Potsdam, Ohio.

THE etiology of pneumonia is a subject of much interest, one upon which there is yet much difference of opinion.

Writers usually speak of age as a predisposing cause, and give three distinct periods of greatest liability, viz.: Childhood; between twenty and forty; and after sixty.

Statistics show, notwithstanding the frequency of catarrhal pneumonia in childhood, that it is five times more frequent in the first two years of life than in the next succeeding eighteen. It is most frequent between twenty and forty, and after sixty it becomes the most fatal of all acute diseases; nine-tenths of the deaths from acute diseases after sixty are from pneumonia. At the extremes of life the sexes are about equally affected, but between twenty and forty the male sex is affected nearly three times as often as the female, owing, no doubt, to exposure; this being a point in favor of the non-specific or non-microbic nature of the disease; but this may be explained in a different light, that of exposure to the infecting agent.

Opinion is divided as to whether the robust or the weakly are the more predisposed.

Convalescing from acute diseases, alcoholic excesses, anti-hygienic surroundings, diphtheria, erysipelas, measles, and other acute infectious diseases, are usually classed by writers as predisposing causes. One attack is said to predispose to another.

Almost every one classes cold as the chief and most frequent cause; such as prolonged exposure to severe cold, sudden chilling of the surface, etc., yet statistics show that cold does not markedly affect the pneumonic rate. Were there any direct relationship between cold and pneumonia we would expect the highest rate in January and February, but statistics will not bear it out.

All things which depress the vitality seem to predispose to the disease.

The fact that it is almost unknown in the Polar regions, and is not infrequent in the Torrid, shows that we must look for some other cause than cold.

Rainy seasons or moist districts do not influence the pneumonic rate to any great extent. Both wet and cold increase the bronchitis rate and the catarrhal processes, but not the pneumonic. Cerebro-spinal meningitis, diphtheria, influenza, measles and other diseases occur most frequently during the winter months, but nobody claims them to be due to cold.

In studying the etiology of the disease we are impressed with the fact that the less resistance the individual is able to offer to some specific influence the more liable he is to become affected with the disease.

Is pneumonia, then, an acute specific infectious disease, or a local inflammation?

That it is not a simple local inflammation has been amply proven by the experiments with air at different temperatures, with noxious gases, with caustic injections and traumatism; all of which have resulted negatively, and even more than negatively, for they have always resulted in lobular, instead of lobar pneumonia.

Exposure in close rooms and bad air is much more liable to bring on the disease than exposure out doors. Increased population gives increased pneumonic rate, a strong point in favor of the infectious nature of the disease, as all acute infectious diseases increase with over-crowding.

The symptomatology is against its being a local inflammation, for the relations of the amount of lung tissue involved and the severity of the symptoms do, not correspond, for upon post mortem, where the case showed the severest symptoms, high fever, delirium, convulsions, and heart failure, there has not been as much lung tissue involved as in cases not showing so severe symptoms.

There is no correlation of the local inflammation to the fever which accompanies it for awhile. It is rare when we have an extension of the disease to have a second chill.

High fever, with severe constitutional symptoms, and small consolidations, and *vice versa*, are the rule, not the exception. There is marked resemblance to the acute infections in the initiatory chill, the orderly pyrexia, typical course, symptoms following in regular sequence, peculiar countenance, herpetic eruptions, nephritis, cerebral symptoms, manner of commencement in young and old, viz.: convulsions in the former and coma in the latter; these all point to a specific microbic agent.

Epidemics of pneumonia are frequent in certain districts, in garrisons, and on board ships. Numbers of instances are on record where two individuals of the same family were simultaneously attacked. I have observed this myself. During the winter of 1883–84 a small epidemic occurred in my locality, where nine typical cases of pneumonia existed within an area of one square mile, and all in the country. They were all under my own observation.

Dr. R. J. Foulis reported an epidemic of pneumonia in which one hundred and fifteen cases occurred within a radius of two miles; the epidemic continuing from November, 1886, to January, 1887.

Several epidemics have occurred in Germany.

The complications of pneumonia ally it to the infections. I refer to peri- and endocarditis, to its cerebral and local complications. Again, cerebro-spinal fever has its lesion in the membranes of the base of the brain and cord; typhoid fever in the lymph structures of the intestinal tract; diphtheria in the epithelia, and pneumonia in the vesicular structures of the lungs.

The accepted treatment of to-day indicates that it is a specific disease. Taking all this together unquestionably favors the possibility of a microbic origin.

The idea of its being infectious dates back to the latter part of the eighteenth century. Klebs, in the

[1] Read before the Ohio State Med. Society, June 5, 1889.

Archives for Pathology and Pharmacology, Vol. IV., 1875, claimed to have found the infectious agent, which, upon being inoculated, developed pneumonia. He called it nervous pulmonale. Others have made similar claims.

Friedlander discovered the pneumococcus; but to Fränkel is due the credit of discovering the microbe of pneumonia, it being a diplococcus which, when inoculated, produces typical pneumonia.

A point of especial interest is that he found that a temperature of 106° invariably destroyed the germ, an observation worthy of consideration in the treatment of the disease.

From what has been said of the etiology of pneumonia, the rational treatment would of course be directed to the destruction of the microbe; but, unfortunately, up to the present, nothing has been tried that will meet this indication.

It has been urged on this account that the theory of the infectious or microbic nature of the disease is wrong. But certainly no one doubts the microbic nature of tuberculosis and a number of other diseases; and yet no germicide has been discovered that will cure them. On the other hand, remedies have been found that will effectually control certain diseases now known to be microbic in their origin, but not so known when first discovered. Malaria, for an example. Neither is it known how quinine cures malaria —whether it destroys the microbes, or whether it acts on the ptomaines generated by them.

Scientific research, however, is adding link by link, and ere many years will give us the whole chain, and enable us to effectually stop the ravages of all acute infections.

The treatment, then, must be symptomatic.

The pneumonic lung no more needs treatment than the intestinal ulcers of typhoid fever.

The first thing, then, of importance in the treatment of pneumonia is to place the patient in the horizontal position. The sick room should be large, cheerful, and well ventilated, the temperature of which should be about 70°.

Nothing is more grateful to the pneumonic patient than plenty of good, fresh air.

Pneumonia produces a greater shock to the nervous system than any other disease; hence, the patient should be placed in the best condition for resisting this shock. This can probably best be done during the developing stage of the disease, and until the pneumonic infiltration is completed, by hypodermic injections of morphine. The great relief which it procures to the patient is sufficient to commend it, especially in those cases attended by much pain.

A third indication in the treatment is heart insufficiency; and here I wish to emphasize the fact that heart insufficiency is not entirely, if at all, due to the high temperature, but to a nervous element.

For a flagging heart, the best remedy is an alcoholic stimulant judiciously employed, the pulse being the indicator, and the quantity administered must be determined by the effect upon the pulse. Begin with small doses, and watch their effect; if the this be beneficial, it will be noticed in a few hours, when the quantity may be cautiously increased.

A fourth indication, according to most authors (until a recent date), is to lower the temperature; which may be done by employing cold in different ways or by the numerous antipyretics now in use. But, as hinted at in my remarks on etiology, reduction of temperature is not a point of great importance; for, if the diplococcus cannot live in a temperature of 106°, why should we strive to reduce high temperatures, when high temperatures are the least favorable to the development of the microbe? Is it not nature's method of getting rid of the cause of the disease?

Many of our best writers are now abandoning the antipyretic treatment of pneumonia.

Dr. Jacobi, in the *N. Y. Med. Journal* in 1887, had already expressed himself as against it.

Dr. Ripley's experience, as detailed before the New York Academy of Medicine in the same year, is not favorable to their use.

Dr. Fruightnight's experience coincides with Dr. Ripley's.

Dr. Castle thinks that, if quinine be given in antipyretic doses, it is at the expense of nutrition.

Formerly I gave all my pneumonic patients antipyretics when the temperature reached 104°; but for the past three years I have abandoned the treatment altogether, and that, too, without the loss of a case.

If expectoration is difficult on account of viscidity, alkalies are indicated; if on account of muscular weakness, alcoholic stimulants are indicated.

If pain in the chest be severe, warm poultices may be made to envelop the chest; but this is rarely necessary if an opiate be used as directed above.

Refrain from all remedies which tend to paralyze the heart, and also avoid over-stimulation, as over-stimulation tends to paralysis.

And last, but not least, the patient should have a fluid or semi-fluid, highly nutritious diet, such as milk, eggs, and concentrated meat-broths, in small quantities at short intervals.

TREATMENT OF INEBRIATES LEGALLY.

By T. D. CROTHERS, M.D.,
Superintendent of Walnut Lodge, Hartford, Conn.

I HAVE received copies of papers with warm praises for the foreman of a Philadelphia jury, who insisted that a defense of intoxication in a murder trial should not be considered; "and, if it was, the courts might as well close and crime have full sway." An editor of a medical journal has caught the infection of this remark, and made it the theme of much commendation.

In Chicago a judge felt called upon to charge a jury in the same spirit, and predicted dire evils should any form of drunkenness ever be recognized as any possible excuse for crime.

These protests are the echoes of dying theories that already cast shadows over the justice and practice of law. These protests assume a degree of knowledge of the nature and character of drunkenness and the possible results of a different opinion that are deplorable, to say the least. The special features of the Philadelphia case are unknown to us; the Chicago case (which is only a type of many others) was that of a notorious inebriate, or rather one who had been seen intoxicated for years, and had been arrested many times for disorderly conduct and petty assaults, who now committed murder in a brutal way, killing a stranger and making efforts to conceal it.

The exaction of the highest penalty of the law in such cases is unjust, simply because the criminal does not possess the capacity to act and reason soundly, as other men. He is crippled in both body and mind, and cannot be judged by the standards of others who are not poisoned by spirits. This is the conclusion of all scientific study. Some of the best legal minds in England have recognized this in the past year. Baron Pollack charged the jury that, in estimating the criminal responsibility of an inebriate murderer,

his heredity should be considered in connection with the fact of his drinking at the time of committing the crime, not as an excuse for the act, but as a fact upon which the disposition of the case could be determined.

Chief Baron Falles directed the jury that a nurse should not be held accountable when, by reason of long-continued watching, her mental powers have been so worn out that a smaller quantity of liquor than ever affected her before rendered her more liable to become beside herself.

Lord Young refused to send to a jury a mother (accused of starving her baby), whence he discharged her with the regret that he could not send her to a home for inebriates, on the ground that drinking too much whiskey was not a crime and delirium tremens was a disease.

Mr. Justice Day ruled that, no matter what the cause may be of the unconsciousness, it is a question of knowledge of the nature and quality of the acts, and capacity to control such acts that governs the responsibility.

Dr. Kerr, of London, in a recent lecture, writes "the only plea for the execution of a person found guilty of a capital offense while intoxicated, that is at all plausible, is that based on economical considerations: namely, that it is cheaper for the State to hang the inebriate at once than to keep him in confinement for any lengthened period of time.

The plea of irresponsibility by reason of intoxication should be accepted not as an excuse for crime, but as a fact showing the incapacity of the accused to control himself or enjoy the liberty of a man in sound mind.

Where capital crime is committed in this State, the penalty should be confinement for life. If, after a term of years, a degree of recovery follows, such cases should go out on ticket-of-leave or parole depending on good behavior.

This should be the penalty not in the low sense of vengeance, but as a measure of self-protection to both the criminal and the community.

Physicians should educate the public and the courts that intoxication is a form of brain paralysis, and the acts of persons who are under the influence of spirits are never those of sound reasoning and full consciousness of their nature and consequences.

If the courts should recognize the disease of inebriety and establish the fact that acts committed in this state are to be considered evidence of the idiocy of the person, and, when repeated, are to be taken as proof of his incompetency to enjoy the freedom of a citizen, and entail on him confinement in a workhouse for periods of years or life-time, such a course would do away with all the mock sentiment and the dogmatic ignorance of trying to determine the degree of soundness and mental responsibility of inebriates. The questions of the courts would be confined to the facts of his use of spirits and his apparent condition after such use. This would require no expertness of medical men to determine.

At present great injustice and confusion prevails, and inebriety and crime are actually increased by the ignorant legal methods to check it. Thus John Jones is arrested for being intoxicated, and fined and sent to prison for ten days, over and over again. His family is impoverished and pauperized, and degraded in the eyes of the community, and are at last recruited into the army of paupers and criminals, and Jones is an incurable and burden on the taxpayers. If Jones' disease had been recognized at first, and he sent to an asylum for a period of years, his family could have succeeded in establishing themselves, and thus been saved from pauperism, and Jones might have been cured and come out a good citizen. At least Jones could have been made self-supporting, and his family would not have been pauperized by his insane conduct.

Physicians have one of the most important problems to determine in this question of drink-maniacs. The common opinions of these cases are very erroneous, and are flatly contradicted by all study of cases and all practical experience. The time has come for medical men to teach the public concerning this class, and not to accept the dictum of theorists and opinions of those who have no clear conceptions of these cases and their needs.

The Polyclinic.

PHILADELPHIA HOSPITAL.[1]

EPITHELIOMA OF THE LIP.

THIS case is one of epithelioma of the lip, or the so called "smoker's cancer." To have a cancerous affection we must have an irritant and a predisposition to cancerous growth in that spot. The great similarity to tuberculosis puts us on the track that we must hunt for its etiology.

The question of etiology of cancer is now in just the same condition that tuberculosis was twelve years ago. When is the most favorable time to operate on epithelioma? From the moment you have convinced yourself that there are epitheliai cells that have a tendency to return if removed, it is an indication that you have not removed the cause. Remove it before metastasis or infiltration of the neighboring lymph glands are invaded.

If you have infection of the glands, they all present the same appearance as if they had been infected secondarily from true carcinoma. The sooner the true epithelioma is removed the less is the chance for a general infection. Happily, in this case I have not detected any infiltration of the glands. Cut away sufficient tissue to satisfy your own mind that all diseased tissue is removed. Simple compression will stop the hemorrhage, and when the sutures are applied it will be entirely controlled.—*Laplace.*

SPEAKING roughly, a quart of oysters contains, on the average, about the same quantity of active nutritive substance as a quart of milk, or a pound of very lean beef, or a pound and a half of fresh codfish, or two-thirds of a pound of bread. But, while the weight of actual nutriment in the different quantities of food named is very nearly the same, the quality is widely different. That of the very lean meat or codfish consists mostly of what are called, in chemical language, protein compounds or "flesh formers"—the substance which makes blood, muscle, tendon, bone, brain, and other nitrogenous tissues. That of the bread contains but little of these, and consists chiefly of starch, with a little fat, and other compounds which serve the body as fuel, and supply it with heat and muscular power. The nutritive substance of oysters contains considerable of both the flesh-forming and the more especially heat and force-giving ingredients. Oysters come nearer to milk than almost any other common food; their values for supplying the body with material to build up its parts, repair its wastes, and furnish it with heat and energy would be pretty nearly the same.—*Cent. Mag.*

The Times and Register

A Weekly Journal of Medicine and Surgery.

New York and Philadelphia, Aug. 9, 1890.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

THE TIMES AND REGISTER,
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THE SALE OF POISONS.

IT does seem a pity that, with one Congress, forty-four Legislatures, and any number of City Councils, Burgesses, Selectmen, and other lawmakers of high and low degree, all burning to signalize themselves and benefit their fellowmen so greatly that another term in office will be forced upon them; we repeat, it seems a pity that we cannot have the sale of poisons properly regulated. A physician must be in practice for three years before he registers as a pharmacist, without examination; because the druggists exerted their influence. But every druggist in the land deals out Piso's consumption cure, that is said recently to have killed two persons; and Mrs. Winslow's soothing syrup, that has slain its hundreds of thousands; and Ayer's cherry pectoral, that dangerous preparation of prussic acid, the deadliest drug in existence. Any child can buy the most powerful poisons known, without the slightest difficulty, if they are only put into the form of a "patent medicine."

In this singular neglect we curiously follow the custom of our English cousins, who, like ourselves, are somewhat slow in moving for sanitary reforms or regulations that interfere with the freedom of trade. In England the sale of officinal narcotics, like paregoric, for instance, is hedged about by legislative enactments; while chlorodyne, a compound of morphine, prussic acid and chloroform, is dispensed freely by all druggists. Moreover, the Government stamp, which represents a duty paid by proprietary goods, amounting to a million dollars per annum, is supposed by the lower classes to be a Government pledge of the efficacy of the medicine.

In Germany, the Society of Apothecaries publishes in its journal the analysis of every new secret remedy, with a comparison of its fixed price and the cost of the ingredients. The Government requires an affidavit of the composition, verified by official analysis, and forbids the sale of any preparation containing poisons, unless the proportion is indicated on the label. Some are prohibited absolutely.

In Italy, the pharmacist is secured in his monopoly of dispensing drugs by an absolute prohibition of the supplying by physicians. He is also prohibited from dispensing any articles not specially permitted by the Pharmacopœia, except upon the prescription of a doctor. All proprietary medicines are submitted to the General Medical Council, with a statement of their exact composition. If the Council deem them safe and useful their sale is sanctioned; if the evidence is unsatisfactory, or if they are unsafe for use by non-medical persons, or do not possess the good qualities claimed, their sale is not permitted. In April last, two hundred proprietary medicines were placed upon the black-list.

As the vast majority of our people believe in amateur medicating, and nine-tenths of the men, and all the women, think themselves fully competent to interfere with the course of any disease, from corns to small-pox, it is too much to ask that the prescribing of drugs be confined altogether to the only class that can possibly employ them intelligently. Still, it is not unreasonable to ask that deadly poisons should not be sold indiscriminately, and put into the hands of the public, without a word as to their dangerous character, or any other directions as to their use than a lying claim of virtues of the panacea order.

Perhaps, some day, when we become civilized, we may obtain such a law.

EXALGINE.

THERE have been some unfavorable reports upon this drug, and in consequence it has fallen behind; but little of it is being called for at the pharmacies. Several observers, however, have obtained results from its administration which indicate the wisdom of giving it a more extended trial.

In the *British Medical Journal*, Herschell questions Atkinson's condemnation. Herschell says that two of Atkinson's patients had been habitually using morphine, and the third butyl chloral. It is a well-known fact that patients of this class rarely admit that anything else will do them good besides their accustomed narcotic. Herschell has obtained good results from the drug in seventy per cent. of his cases. In three cases of locomotor ataxia, exalgine gave relief from the lightning pains in two, and from the gastric crises in the third. In trifacial neuralgia, sciatica and herpes zoster of a severe type, the same drug gave prompt relief.

Farrar contributes a still more significant instance of the analgesic power of this drug. In a case of cancer of the liver, complicated with excruciating attacks of neuralgia of the face and head, for which many remedies had been tried without benefit, two-grain doses of exalgine, repeated every two hours, gave immediate relief. Indeed, the second dose cured the neuralgia; and in three months following the patient had not suffered a twinge of the pain.

A drug which will accomplish this much is not one to be cast aside as useless after a few unfavorable reports.

DURING the fortnight ending July 12 there were three hundred and fifty-eight cases of scarlet fever reported in London.

Annotations.

TRANSFUSION of blood in typhoid fever has been suggested as a means of supplying nourishment in extreme cases of debility. The special indication for this method is the impossibility of conveying food through the diseased intestinal glands to reach the thoracic duct. In the *North Carolina Medical Journal*, Dr. Jenkins records a case in which transfusion was employed to compensate for the loss of blood through intestinal hemorrhages. Seven of these had occurred, involving a loss of about two gallons of blood. Extreme exhaustion was the result; the patient was sinking rapidly, the pulse almost imperceptible, and respiration labored. Direct transfusion was performed, the blood being supplied by the common carotid artery of a lamb, and introduced into the patient's brachial vein. The enormous quantity of a quart of blood is said to have been introduced, though it is not stated how the measurement was taken. Immediate improvement was noticed, and rapid convalescence ensued.

MUSSEL POISONING.

MUSSELS are rarely used for food in this country, though in Ireland the poorer classes employ them. Cameron reports a case, in the *British Medical Journal*, in which a mother and four children died within two hours after eating stewed mussels. The chief symptoms were vomiting, dyspnœa, swelling of the face, incoördination of motion, and spasms —principally in the arms. The patients appeared to have died asphyxiated, their faces being intensely livid. The mussels had been procured from a small sheet of water which had access to the sea, but also received fresh water and sewage. They had brittle shells, and larger livers than mussels taken from the open sea. A leucomaine was extracted from them, corresponding to that described by Brieger as appearing in poisonous mussels. The author does not agree with Dutertre in his claim that the disease is never due to the food of the mussel. In nearly all the recorded cases of mussel poisoning they were in contact with sewage or stagnant water.

CHOLERA.

AS we predicted months ago, the cholera has spread to Mecca, and may be expected to go out from that city, with every returning caravan of pilgrims, to all parts of the Mahometan world. The French authorities are alive to the danger, and have endeavored to prevent the departure of pilgrims from their African dominions. This, however, is so difficult to do that it would have been wiser not to make an attempt which is sure to arouse the religious zeal of the natives in opposition, but rather to have regulated the pilgrimages in such a way that the return would be under the control of the authorities. The co-operation of the natives could thus have been secured, and the task of keeping out cholera perhaps rendered possible.

In Asiatic Turkey the epidemic has appeared near Diarbekir, and is advancing toward the Black Sea. Here it will probably prove a more potent defence against the Russians than will be afforded by the Turkish arms. If cholera becomes generally prevalent throughout the Turkish Empire, it will probably postpone the impending conflict for another year.

Letters to the Editor.

PYOCTANIN.

I FIND the enclosed paragraph in a daily paper, where, of course, it has no weight. If you have any particulars obtainable about this new remedy, do you not think it would be advisable to publish them in your interesting and ably edited paper?

SAN FRANCISCO, July 15, 1890.

NEW SURGICAL DISCOVERY.

Prof. Sittig, of Strasburg, has made the important discovery that pyoctanin, an aniline derivate, is an absolute destroyer of pus in any quantity. His new medicine is looked upon as the ideal destroyer of wounds, suppurations, ulcers, and skin affections, and is totally harmless. It is also highly diffusible, and has an immense sphere of utility. Taken internally, it is a remedy notable for pleurisy and peritonitis. Merck, of Darmstadt, has prepared all his surgical dressing material with this new discovery.

[We called attention to this substance in the issue of July 26, page 95, and the skepticism expressed there has been since confirmed. We have gotten over most of the delusions of youth, and no longer expect the earth, with a fence around it.—ED. T. & R.]

Book Reviews.

RECOLLECTIONS OF GENERAL GRANT. By GEORGE W. CHILDS. Philadelphia, Collin's Printing House, 1890.

If any man can be selected as the representative Philadelphian, it is George W. Childs. The qualities that have made the *Ledger* the great journal it is today, are those which distinguish Philadelphia, at her best. Unassuming worth, the industry that labors steadily and quietly, without noise and without hurry, and a correct judgment as to the needs of the day, are qualities we like to look upon as especially Philadelphian. Those unfamiliar with the currents of thought in the city, sometimes express surprise that the great success of the *Ledger* does not appear to excite antagonism from other journals. But Mr. Childs has not climbed to eminence by pulling down others. It is an oft-told tale, that of success by persevering, well-directed industry; and the road is open to every one who chooses to walk in it. The kindly nature of Mr. Childs has made his friendship prized by the greatest men of our time, and by none more than by General Grant. These "Recollections" give, what has always been eagerly received by the public, a glimpse into the private life of a great man. The world has very few such books, copious as is our literature in nearly every other department. Mr. Childs' reminiscences are as interesting as Boswell's, but presented with a dignity the sycophantic Scotchman could not assume.

Pamphlets.

VARICOCELE. By THOMAS W. KAY, M.D., Scranton, Pa. Reprint from *Cleveland Medical Gazette*.

The author describes two cases in which he opened the scrotum, with antiseptic precautions, cut down upon the veins and ligated them. By this method all danger of including the artery and thus causing atrophy of the testicle, is avoided.

EXTRA UTERINE PREGNANCY. The History of—By DR. G. W. MILTENBERGER. Laparotomy for; with Report of a Successful Case—By DR. T. A. ASHBY. Review and Discussion—By DR. H. A. KELLY. General Discussion. Papers read before the Obstetrical and Gynæcological Society, of Baltimore City, January 14 and February 11, 1890. Published by order of the Society.

The Medical Digest.

LINSLEY records a case in the *Medical Record* in which the urine presented a specific gravity of 1,050. The phosphates were in great excess. The symptoms were headache, anorexia, dullness and malaise; temperature elevated, and pulse rapid; but with no typhoid spots or marked symptoms of that disease. After more than four weeks, the symptoms continued.

OPPENHEIM contributes to the history of cerebral surgery a case of cerebral hemorrhage, with incomplete paralysis and clonic spasms. The symptoms were those of monoplegia facio-brachialis sinistra, headache and psychical anomalies. He opened the skull over the sulcus Rolandi, found a cystic glioma and removed its upper surface. Progressive improvement followed the operation.—*Med. Press.*

A PRACTICAL SUGAR TEST.—Nothnagel showed a handy test for sugar, which had been forwarded to him by Dr. Becker, of Cairo. It is simply a visiting card saturated with a solution of potash, over part of which is drawn a covering of the sulphate of copper, and the urine applied. The card is then laid on the globe of a lamp, when the saccharine urine will color the card brown, and this color will be the deeper the greater the amount of sugar.—*Med. Press.*

MYRTLE (*Med. Press*) records a case in which a double ovariotomy was performed in 1882, and the left kidney, with a portion of the mesentery, removed in 1889. After the latter operation an abscess formed, which, more than three months later, discharged through the left lung. The remaining kidney accomplished the work of two; the wound healed kindly; but deep seated inflammation set in early, causing suppuration diaphragmatic empyema, paralysis of muscle, fixing left thorax, adhesion of lung, and the abscess finally broke through to the bronchi. Recovery finally ensued.

CAUSES OF HÆMATURIA.—In 100 cases the causes were as follows:

Renal calculi	30
Enlarged prostate	20
Vesical calculi	14
Tumors, mostly malignant	13
Tubercle	6
Urethral stricture	5
Non-prostatic cystitis	3
Passage of calculi through ureter	3
Traumatism	2
Filaria sanguinis hominis	1
Doubtful	3

—Reginald Harrison, in *Med. Press.*

FRENNEL repeats the marvellous tales about ichthyol which followed its first appearance. The results of its intravaginal use are astounding. Cicatrices disappear in a few days, tubal pains abate, and erosions heal rapidly. Internally he gives 1½ to 3 grains thrice daily; and locally applies tampons of cotton with ichthyol, 5 parts to 100 of glycerine. When energetic resorption is demanded, he uses equal parts of ichthyol and lanoline, or 8 parts ichthyol to 80 of soft soap, rubbed over the abdomen. Erosions are painted with pure ammonium sulphichthyolate. In pruritus, a 10 per cent. lanoline ointment answers. If pain is great, 2 to 5 per cent. of chloral hydrate is added to the glycerine. After resorption has begun, he employs massage and electricity.—*Med. Press.*

TARNOWSKI has published a study of the physical peculiarities and the heredity of prostitutes and female thieves, as compared with a number of women of good character. All were of pure Russian blood. The author states that prostitution is followed by choice, and that the women return to it voluntarily when provided with other means of earning a living. The crania of these women averaged smaller than those of honest women; the prostitute's face was larger; her height was less; while signs of degeneracy, asymmetry of the face, malformations of the head, ears, teeth, palate, etc., were so frequent that 82 per cent. presented more than one such abnormality, against 2 per cent. among educated, honest women, and 14 per cent. of illiterate. Eighty-four per cent. of prostitutes and 16 of honest women had intemperate parents; and of the former class 6 per cent. had epileptic parents, 3 per cent. insane, and 4 per cent. were affected with hereditary syphilis. Without exception they were weak-minded or neuropathic.

The habitual thieves were physically and mentally superior to the prostitutes, though inferior to the honest class. Seventy-nine per cent. presented two or more signs of degeneration, 49 per cent. were of intemperate, 4 of epileptic, and 2 of insane parentage.

—*Amer. Jour. of Insanity.*

NERVOUS SYMPTOMS CONSECUTIVE TO DOUBLE CASTRATION.—It is curious that so little should be known in respect of the nervous and psychical troubles following removal of both testicles. Tradition tells us that eunuchs castrated before the advent of puberty assume certain feminine characteristics in respect both of mind and body. When the operation is performed after puberty, the corporeal changes are naturally less well marked, but the victims become irritable, melancholic, and devoid of energy and initiative. Although in Russia and elsewhere there exists sects, such as the Scopzys, who practice self-mutilation, their votaries do not afford much help in observing the effects of the deprivation, because nervous and psychical derangements may be supposed to precede the operation. Those who have to submit to the loss of the testicles for surgical reasons are by no means numerous, and they invariably withdraw from observation as soon as the wound is healed; and, moreover, the condition of their nervous system is usually masked by the predominating influence of the diathesis (often tuberculous), the local manifestations of which have necessitated the operation. In regard to females, our data are more numerous and exact. The climacteric period is well known to be associated with nervous and psychical troubles, and at this epoch the character and temperament become modified. Mental disease is frequent at this period, and the same morbid phenomena seem to result from the artificial menopause brought about by double castration. The most frequent symptoms are due to vaso-motor disturbances, which may go so far as to cause vertigo, and even simulate epilepsy. The psychical symptoms belong to the melancholic type, and not uncommonly terminate in dementia and suicide. Eleven out of thirty-three women operated upon were found by Claewecke to have developed these symptoms. According to Brown-Séquard they are attributable to the withdrawal from the blood of secretions, the reabsorption of which usually had an activating effect on the system generally.—*Med. Press.*

FATIGUE AND EXPERIMENTAL HYSTERIA.—The idea long since suggested itself, from close observation of the symptoms met with in hysterical women,

that the condition must be due to a lack of nervous energy—that is to say, a sort of paresis of the nerve centres which control the various organic and psychical functions. According to the *Revue Scientifique*, M. Féré has recently confirmed this supposition by demonstrating the close relationship which exists between phenomena resulting from a passing condition of fatigue, and those incidental to the more permanent condition of hysteria. For instance, in patients belonging to this category, the involuntary symmetry of muscular movements often shows itself in a very characteristic way. This symmetry, moreover, may be detected in healthy persons under the influence of fatigue, as well in epileptics after recovery from an attack. The physiological explanation of this fact is to be found in that the association of a voluntary movement on the part of another limb with that of a limb, the force of which is being measured, has for effect to increase the latter quantity. Another curious phenomenon, particularly well marked in the so-called "grands hysteriques," is the peculiar excitability which, under the influence of peripheral stimulation or suggested mental images, causes rapid and fugitive modifications of voluntary movements co-existent with similar modifications of sensation and nutrition. The same kind of excitability is developed in the case of fatigue. Fatigue, therefore, appears to constitute a veritable "experimental hysteria," standing, as it were, half-way between the normal person and the confirmed *hystérique*. Anything that tends to lower or depress the vital phenomena may therefore pave the way to an outburst of hysteria, the facility with which the latter is induced depending, of course, upon the normal vital energy of the patient. These facts explain the occurrence of traumatic hysteria, so frequent among males. In these cases, apart from any obvious transmitted or acquired predisposition, a violent shock or any other cause of sudden and excessive discharge of nervous energy may serve as the starting point of a neurosis which is practically indistinguishable from hysteria. These observations may assist in formulating a rational treatment for hysteria, prophylactic or otherwise.

—*Med. Press.*

Prolapse of the Ovary.—One of the most distressing and painful complaints to which the human female is liable is that of prolapse of the ovary. The commonest displacement as that which gives the most trouble as a rule, is generally backward and downward into Douglas's space, and is most frequently found in conjunction with retroflexion or retroversion of the uterus, and is more familiar to the gynæçologist than the other forms of displacemeet. The ovary enlarged from structural disease becomes congested and tumefied, more especially at or near a period, and a sudden fall or violent exertion, combined with a lax condition of the broad ligament, allows that organ to sink by degrees till the pain produced by the action of the bowel (more especially when allowed to become confined) is the first thing to direct the patient's attention to the complaint, and soon compels her to seek relief. Byford states, page 682, in his work On the Diseases and Accidents Incidental to Women: "The intimate and firm ligamentous connection of the ovaries with the fundus of the uterus causes them to partake of the changes in the position of that part of the organ. Thus when the fundus rises into the abdomen during pregnancy the ovaries are carrid up with it."

When the complaint has been of some duration, the ovary will easily be detected by the pain and feeling of sickness complained of by the patient when touched or pressed upon by the finger of the examiner, and which almost always makes the diagnosis unmistakable.

When the prolapsed organ is held down by adhesions, or a retroflexed uterus, it becomes a difficult matter to treat the case satisfactorily.

My own experience leads me to think that this affection is often overlooked, the flexion or version diagnosed only, and a pessary introduced, which, as Byford says (page 687), "Is pretty sure to cause pressure upon these sensitive organs, and soon become intolerable." My object in writing this paper is to call attention to the importance of examining more closely, in all cases of retroflexion (more especially of long standing), for a prolapsed ovary, before inserting a pessary which may do more harm than good, certainly add to the patient's distress, and bring discredit on a valuabie instrument. Examination per rectum in these cases is most important, the ovary can be more distinctly felt, as the examining finger can reach higher, and the organ can be palpated by a finger in both passages, if necessary. The treatment I adopt in these cases is the following:

I place the patient in the knee-elbow or knee-chest position, and the vagina being kept open by the duck bill speculum, the gravitation of the uterus forwards, assisted considerably by the atmospheric pressure on vaginal roof will (if the ovary be not bound down by adhesions) move upwards and out of reach of the examining finger.

If a Thomas' pessary (which is the one I prefer) be chosen of suitable size and fixed *in situ* so as to fill the roof of the posterior *cul-de-sac* the ovary cannot possibly regain its vicious position, and by keeping the bowels regular and restoring the general tone as much as possible by common-sense treatment, the patient will certainly be relieved, if not completely cured.

When we find the ovary bound down by firm adhesions, which will not give way under the influence of massage, and the patient's life becomes a burden, it is our duty to consider the removal of the offending organ, which, as a rule, is not a difficult operation, in this displacement easy access being had through posterior part of vaginal roof. The organ being drawn down by the ovum forceps, a ligature is passed round the pedicle and tied, and a scissors completes the removal. The incision should be left open for drainage; no necessity for sutures; vagina well syringed directly after the operation, and the rest left to nature.—Duke, *Med. Prees.*

The Transfer of Disease by Magnetism.—The department of therapeutical research taken up with such ardor and perseverance by Dr. Luys, of the Charité Hospital, at Paris, is not one which commends itself to the sober practitioner, and his more or less startling discoveries (?) invariably give rise to much hostile criticism on the part of those who see in this observer less a scientific investigator than one who is apparently unable to distinguish clearly between the real and the ideal. A year or two since he succeeded in exciting the attention of the French Academy of Medicine in reference to a very novel plan of treatment by drugs *à distance*, that is to say, he claimed to be able to produce the characteristic effects of varioas medicinal agents by merely exhibiting them to patients without actual ingestion. A committee of skeptics was appointed, and they reported conclusively that the effects were not such as had been claimed. Dr. Luy's latest sensation—communicated to the astonished world in the columns of

a lay contemporary—consists of the transference of diseases in hypnotized subjects by means of the magnet. So far as single individuals are concerned, the experiments have not exen the merit of novelty, for the transferenece of hysterical paralysis and similar subjective conditions from one side of the body to the other has over and over again been essayed, and not unfrequently with a certain measure of apparent success. Dr. Luys, however, goes a step further, and claims to have transferred the affection to a healthy subject, and in a manner and with a ceremonial which savors of the time when evil spirits were exorcised for the benefit of their host. It is quite impossible to take these experiments *au sérieux*, though in the hands of a clever writer they have proved capable of producing some very readable "copy." We have no prejudice against further observations in this disection, but it is only fair to the profession, as well as to a public ever avid of the marvelous, that they should be conducted on well-recognized principles, so as to eliminate the factor of auto-suggestion on the part of the observer.—*Med, Press.*

Here is the opportunity of their lives to the numerous wives who ardently desire that their husbands should have just one baby. Just apply to Luys and have the babe transferred—womb, ovaries, and all—to the guilty man.

FRENCH NOTES.

By A. E. Roussel, M.D.

Treatment of Insomnia in Children (Jules Simon).—We must at first seek the cause, which is often very difficult to discover. In most instances insomnia is due to dyspepsia. It is therefore necessary to question the parents on this subject; if the child is nursing at the breast, we must inquire as to the method by which it is being fed, examine the breast milk and ascertain whether the breast is not given at irregular intervals. We have often to deal with a child who is prematurely weaned, and who is given too rich food—alcohol and tea or coffee.

Insomnia is also often due to the fact that the evening repast is too copious; a child should always, even at the age of three or four years, eat moderately at night and only light food, such as eggs, chicken, etc.

The etiology once known, our first care should be to combat the cause by prescribing a severe hygiene. In some cases, when this does not suffice, or when we have been unable to discover the cause, we must act notwithstanding, and turn our attention to the hypnotics. What, then, are the hypnotics which may be prescribed for a child?

The first of these hypnotics is opium; it has been endeavored to remove this drug from infantile therapeutics, but, notwithstanding, it is the best of hypnotics. But we must not administer opium to a child who is constipated, who has anuria, or who is troubled with itching; these are the principal counterindications. Prescribe laudanum in doses of half a drop under one year of age, and one drop additional for each year, in a potion.

The syrup of codein is a good hypnotic, admirably supported by little children. At the age of one year, a teaspoonful of this syrup in a potion; under one year of age, half a teaspoonful.

The bromides are often useful; we give thirty centigrammes at six months of age, fifty at one year, administered at night, taking care to interrupt the indications after five or six days, to be renewed subsequently.

Chloral is an excellent hypnotic, without danger; it can be given in the same doses as the bromides, and the best way to administer it is by enema. We use a simple enema to clean out the intestine, then the chloral, associated with camphor or musk, with the yelk of an egg and a small quantity of water.

Chloral is especially useful when the child is threatened with convulsions, when there is present hiccough or twitchings; insomnia is in effect often the prelude of convulsions.

In some cases, antipyrine by enema in the same doses as the chloral or the bromides, is a good medicament.

There are also other hypnotics which should not be neglected, such as laurel water, musk, ether and valerian.—*Le Bulletin Medical.*

Medical News and Miscellany.

Scarlet fever is steadily increasing in London.

The rumors of an epidemic of typhoid in Bethlehem are unfounded.

At Brunn, Austria, permanganate baths are used for small-pox, with asserted benefit.

Surgeon General Gordon states that tropical Africa cannot be colonized by the English race.

The Chicago doctor's claim that water will cure consumption applies with particular force to the consumption of whisky.

To endure the rigors of winter may require fortitude, but to endure the rigors of this summer requires 92d.—*Washington Star.*

Pennsylvania doctors who have practiced three years are entitled to register as druggists without examination.

Thanks, awfully!

An Ohio girl sued a railroad company for injuries resulting in an ovarian tumor. An operation being decided necessary, the surgeon opened her abdomen and found a dead, full-term fœtus. The railroad pleaded "not guilty."

Representative Cornbread: "Doctor, I wish ye'd give me some medicine."

Doctor: "What's the matter?"

Representative Cornbread: "I dunno; but every time I open my mouth the Speaker tells me I'm out of order, an' I thought I might ez well hev it 'tended to."—*Washington Post.*

Sometimes the inherent cussedness of things seems to be suspended, and events occur with a certain degree of aptness. Just as the diplomas were about to be delivered to a First Aid to the Injured class in London, a boy was run over by a cart, in the neighborhood, and the members at once proceeded to demonstrate their proficiency.

Dr. Frank Bosworth, of New York, concludes, from a careful study of the subject, that no country in the world has more valuable mineral springs than are to be found in the United States, and that a thorough test of their properties by medical men, and the adoption of systematic regimen, with a view to regulating cures, would secure them popular recognition.

PROFESSOR S. G. DIXON has taken his family to the Maine coast.

THE cholera, on July 31, was causing eighty deaths daily in the city of Mecca.

PROFESSOR J. M. ANDERS has burned his ships by selling his Eighth street house.

NEW ORLEANS has quarantined against Port Limon, Costa Rica, for yellow fever.

A LOUISVILLE doctor, aged eighty-one, has just married his sixth wife, aged forty-one.

PROFERSOR J. E. GARRETSON has gone for the remainder of the summer to Castine, Maine.

DR. W. G. STEVENSON, of Poughkeepsie, a prominent member of the Board of Education, died recently.

THE Senate of France has voted twenty thousand dollars for the establishment of frontier guards against cholera.

OVER four hundred women and children were sent to the country last Thursday by the Children's Country Week Association.

AT the W. C. T. U. Camp, at Valley Forge, Dr. Caroline M. Dobson conducted a School of Methods in hygiene and heredity.

DURING July 5,197 boys, 1,196 men, 1,043 women, and 2,542 girls used the free baths of the Bedford Street Mission, at 619 Alaska street.

DR. WILLIAM BRODIE, aged sixty-seven years, one of the best known physicians in Michigan, died, on Wednesday evening, at his home in Detroit.

THE useless fastings of such men as Succi has caused the coining of the useless word "asitia," to denote the state produced by voluntary starvation.

A CHIROPODIST bears no relation to a clog-dancer merely because he is in the healin' toe business.
—*New York News.*

THE Children's Sea-shore House is full to overflowing, but its funds are nearly exhausted. Three thousand dollars are needed for the next five weeks.

AT a concert and tableaux entertainment given at the Hotel Bellevue, Wayne, $225 was realized for the benefit of the Children's Country Week Association.

DURING July the Milk Inspector examined 8,799 quarts of milk, of which 1,558 were condemned. The percentage of milk adulterated or partly skimmed was 17.7

DR. H. B. BRUSSTAR, Lazaretto physician, has replied to the resolution of the Health Board in reference to the admission of persons to the Lazaretto Station without permits.

THE Sanitary Council of Alexandria has issued orders that the regulations to prevent the introduction of cholera into Egypt be strictly applied to vessels from Red Sea ports.

OVER one hundred men employed in the Philadelphia and Reading machine shops at Reading are off duty, owing to illness, most of them suffering from dysentery in its worst form.

THE Philadelphia public baths were patronized last week by 111,317 persons. This number would doubtless have been much larger if the bathing facilities permitted, as crowds were turned away who could not be accommodated.

ONE hundred years ago July 31 the first mechanical patent was issued by this Government. It was granted to Samuel Hopkins for making pot and pearl ashes. The total number of patents issued during the century was 433,432.

IT is stated that a Bohemian has discovered a combination of chemicals, by the use of which the hardest stones can be dissolved and moulded into any shape, the "cast being as hard as flint, translucent, and capable of taking on a brilliant lustre."

DR. GEORGE F. ROEHRIG has called the attention of the police to the cases of two children who were seriously ill from the effects of eating samples of sugar-coated pills, which were distributed on the street. The children mistook the "patent medicine" for candy.

THE monthly report for July of St. Mary's Hospital Dispensary shows the total number of visits, 1,864; number of new cases, 531; accident cases, 224; eye cases, 478 old and 83 new cases. Eighty cases were admitted to the house; of these 22 were surgical and 58 medical.

INFORMATION has reached Bonne Bay, Newfoundland, that a violent outbreak of diphtheria has occurred at Red Bay, a fishing settlement on the Labrador coast. The place is in a bad sanitary condition, and more than half the people are ill. The only hope is that a British war ship will go to the rescue with doctors and medicines.

MANUEL GORUTUS, a young man who came to this country from Yucatan some time ago, has been sent to the pest house, on North Brothers Island, as an incurable leper. His disease is what is called anæsthetic leprosy, a variety of the terrible disease characterized chiefly by numbness of the parts affected.

BY means of two instruments, which he calls the "neomatchograph" and the "neomatchometer," Prof. Donder, of Utrecht, has discovered that it takes the brain one .067 of a second to elaborate a single idea. It is a great waste of time to devote one .067 of a second to some of the ideas elaborated—and this may be one of them.—*Norristown Herald.*

THE International Medical Congress is by this time a thing of the past. On the opening day it was said that five hundred American doctors were in attendance. Surgeon General Hamilton responded to the address of welcome. Meanwhile, the Berlinese are treated to a specimen of American tropical weather, August 4 being the hottest day within ten years, and twenty sunstrokes occurring.

THE Committee of the Countess of Dufferin's Association for providing female medical aid for the women of India, have offered a scholarship of $500 for competition amongst the students of the Edinburgh School of Medicine for Women. The successful candidate must qualify for medical practice in India in connection with the association. The conditions on which it is to be awarded are not yet settled.

IT is so seldom that milkmen are actually caught watering their milk that the finding of one in the act in Paris recently was deemed a worthy enough piece of news to be sent as a special to London. He was working the pump when the officers put in an appearance, and he said: "Ah, well, you have fairly caught me this time. Jump up on my cart and I will drive you to the police office, to save you trouble."

SECRETARY JOHNSON, of the Indiana State Board of Charities, reports that there is in one of the institutions of that State, a girl who has a face and some of the characteristics of a pig. She realizes her affliction, and avoids strangers in consequence. This is where she differs from many males, who resemble her in the possession of porky characteristics, which they always intrude on strangers.

DR. ERNEST VON BRUECKE, the noted physiologist, who opposes vivisection, has retired from the faculty of the Vienna University, after an uninterrupted course of forty-one years' teaching at that institution. He is pensioned off under an Austrian law that requires the retirement of professors and State functionaries who have attained the age of seventy years, though still in the prime of his mental powers.

THE place of Dr. B. W. McGilland, Resident Physician of the Presbyterian Hospital, whose term of office expired recently, will be filled by Dr. Howard S. Anders, the Junior Physician. The men's surgical and children's wards will be under the charge of Dr. W. C. Posey, and Dr. J. Robinson will hereafter be at the head of the women's surgical ward. Dr. Barker, a new resident, will look after the men's and women's medical wards, as well as the ambulance service.

INTERMENTS in Philadelphia, from the 26th of July to the 2d of August, 1890:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess of back	1		Fever, puerperal	1	
" brain		1	" remittent	2	
" kidneys	1		" scarlet		1
" liver	1		" typhoid	11	2
" lung		1	Fracture of skull		1
" psoas		1	Gangrene	1	
Alcoholism	2		Gangrene of the leg	1	
Asphyxia		1	Hemorrhage from lungs	1	1
Apoplexy	9		" umbilical		1
Anæmia	1		Homicide		1
Bright's disease	6		Inflammation brain	3	8
Burns and scalds	1	1	" bronchi	1	8
Cancer, breast	1		" bladder	1	
" stomach	9		" kidneys	2	
" uterus	3		" larynx	1	
" kidneys	1		" lungs	9	9
" liver	5		" pericar'm		1
" œsophag's	1		" periton'm	5	1
" rectum	1		" pleura	1	1
Casualties	8	4	" s. & bowels	5	7
Cerebro spinal meningitis		2	Inanition		8
Congestion of the brain		5	Leucocythemia	1	
" " lungs	3		Mania-a-potu	1	
Congestive chill		1	Marasmus		25
Cholera infantum		42	Old age	20	
" morbus	3	2	Obstruction of the bowels	1	1
Cirrhosis of the liver	3		Paralysis	3	1
Compression of the brain	1		Pyemia		3
Consumption of the lungs	33	3	Rheumatism	1	
Convulsions		21	Scrofula		1
Croup		7	Septicæmia	2	
Cyanosis		6	Sore mouth		1
Drowned	1	1	Softening of the brain	2	
Debility	1	2	Sunstroke	1	
Diarrhœa	4		Tabes mesenterica		1
Diphtheria		7	Teething		2
Disease of the kidneys	1	1	Tetanus		2
" " heart	19	3	Tumor	7	
" " liver	1		" neck	1	
Dysentery	3	1	Uræmia	3	
Dropsy of brain		1	Whooping-cough		11
" the chest	1		Total	207	207
Fatty degeneration of the heart	1				

THE Secretary of the Christian's Home for Intemperate men, of New York, complains "that there is an unwillingness, a prejudice based on misconception or on erroneous teachings, which inclines many to try any and every thing except moral force to correct an immoral thing." He says that although this Home has been in active work for twelve years, and nearly three thousand men have been treated, one-half of whom are "standing witnesses to the power of grace," or cured, in their meaning, the fact remains that we have never been able to fill the Home to its full working capacity. The Christian Home and the principles on which it is based belong to an earlier age of the world, the age of credulity. All scientific advance is fatal to its prosperity. Nothing but change and adapting itself to the clearer light of the age will prevent a certain death.—*Jour. Inebriety.*

YOUNG DOCTOR STUNNING: Do you know, dear, I never thought to ask you if the census enumerator interviewed you?

His Fiancé: Oh, yes, Charlie. He came and I told him that I had a specialist in chage of my case, who had discovered strong symptoms of a serious affection of the heart, and I thought he'd better put it down as both "acute" and "chronic."

—*Boston Saturday Evening Gazette.*

TOMATOES FOR DYSPEPSIA AND BILIOUSNESS.—Communication in the *Pall Mall Gazette.* "Mr. Editor:—Having been a sufferer from biliousness and dyspepsia for a great many years, and having tried all sorts of medicines without success, I was recommended to try the effect of tomatoes. The result has been marvelous. I can safely say that since the tomatoes have been in season, I have only had one attack—and that a slight one—of this disagreeable complaint. I think you would be doing the public a service in drawing their attention to this simple but effective remedy."

NEW PATENTS:—

PATENTS GRANTED JULY 29TH, 1890.

Abdominal supporter	H. E. Rogers	Portland, Me.
Inhaler and spirometer	W. A. Shepard	Elgin, Ill.
Dental vulcanizer	J. E. Quinn	Boston, Mass.
Inhaler	G. W. Nutz	Philadelphia, Pa.
Artificial leg	G. Beacock	Brockville, Ont.
Pharmaceutical powder-divider	W. F. Dessau	Chicago, Ill.
Surgical splint	G. Beacock	Brockville, Ont.
Salve	J. J. Ryan	Brooklyn, N. Y.
Electrical syringe	J. H. Woodward	Seward, Nebr.
Temperature regulation	R. J. Pratt	Greenbush, N. Y.

TRADE MARKS ISSUED JULY 29TH, 1890.

Medical remedies (A portrait of the face of Dr. John Swinburne, formerly of Albany, N. Y.)	W. G. Lewi	Albany, N. Y.
Medicated tooth-picks (The representation of a rustic diamond-shaped frame formed of tooth-picks inclosing the words "Medicated Tooth Picks")	E. E. Burson	Rockford, Ill.
Remedy for diseases of the digestive organs (The word "TRYPHOSA")	F. N. Class	New York, N. Y.
Medicines for certain diseases of men and animals (A portrait of the registrant)	E. S. Sloan	Boston, Mass.
Chemical preparation for bleaching purposes (The word "OZONINE")	The Drevet Manufacturing Company	New York, N. Y.
Remedy for the destruction of Bacteria, Microbes and Germs in the human system (The word "GLYCOZONE")	The Drevet Manufacturing Company	New York, N. Y.
Florida water (The representation of a vase containing a white, a red, and a yellow rose)	The American Florida Water Co	New York, N. Y
Remedy for wounds (A circular band, at opposite sides of which are arranged two crescent-shaped figures)	Sommer, Bros.	New York, N. Y.

LABELS ISSUED JULY 29TH, 1890.

Title: "Half Dollar Box of Chemicals"	Harry I. Corbitt	Brooklyn, N. Y.
Title: "Medicated Food"	John Elliott	Indianopolis, Ind.
Title: "Glycozone"	The Drevet Manufacturing Company	New York, N. Y.
Title: "Syrup of Figs"	California Fig Syrup Company	San Francisco, Cal.

PATENTS EXPIRING JULY 29TH, 1890.

Manufacture of chlorine	H. Deacon	Lancaster, England.
Disinfectant compound	J. Hilton	New York, N. Y.
Pessary	F. P. Banning	New York, N. Y.
Dispensing syrup in soda water	J. Matthews	New York, N. Y.

—Charles J. Gooch, *Patent Attorney.*

DR. JOHN A. WYETH, of New York, has consented to deliver the address before the Mississippi Valley Medical Association, at its annual meeting, in Louisville, October 8, 1890. Quite a number of prominent medical men in the Mississippi Valley have given in titles of papers to be read, and promised to attend and take part in discussions. A large and profitable meeting is already assured. Dr. Frank Woodbury, of Philadelphia, will read a paper. The profession of the Mississippi Valley are especially invited to be accompanied by their wives, for there may be expected great things socially as well as scientifically, and the ladies always have a good time in Kentucky. Titles of papers to be read are sent to the secretary, Dr. McKee, 57 West Seventh street, Cincinnati, who would also be glad to receive reprints or copies of all papers read at the last meeting, to make the collection as complete as possible.

THE SPANK CURE.—The Chicago *Inter-Ocean* remarks, quaintly but sensibly:

"Among the good old customs which are falling into disuse, that of spanking the coming generation into behaving itself is leading the procession. There are no such spankings now as there used to be in my time, and I am sorry for it. Things in the spank line are certainly degenerating, along with the drama, the flavor of strawberries, and phenomenal weather, as the years go by. Children just entering the heated, base-burning epoch of spankhood now have "nerves," and must be humored. They get to balking and skulking, and the family physician is called in when the good old housewife remedy of a warm application of slipper is all that is needed.

"The spank cure is not appreciated in this generation as it was in the last. Looking back on a stormy and tempestuous career in the wood-shed with Jones *pere* at the helm, I now feel like writing him a kind and encouraging testimonial on the efficacy of his unapproachable spank treatment, although at that time I felt more like kicking him in the shins, and, I regret to say, sometimes gave vent to my emotions."

TO CONTRIBUTORS AND CORRESPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from July 11, 1890, to July 16, 1890.

By direction of the Secretary of War, leave of absence for three months, to take effect September 15, 1890, or as soon thereafter as his services can be spared, is granted Captain William H. Arthur, Assistant-Surgeon. Par. 1, S. O. 160, A. G. O., Washington, D. C., July 11, 1890.

By direction of the Secretary of War, the leave of absence on surgeon's certificate of disability granted Captain Louis M. Maus, Assistant-Surgeon, in S. O. 4, January 6, 1890, from this office, is extended six months, on account of sickness. Par, 16, S. O. 160, A. G. O., Washington, D. C., July 11, 1890.

By direction of the Secretary of War, leave of absence for four months, on surgeon's certificate of disability, with permission to leave the Division of the Missouri, is granted Captain William H. Corbusier, Assistant-Surgeon. Par. 4, S. O 163, A. G. O., Washington, D. C., July 14, 1890.

Leave of absence for one month, to take effect the 30th instant, is granted Col. Charles Page, Assistant-Surgeon-General, Medical Director of the Department. Par. 3, S. O. 91, Department of the Missouri, St. Louis, Mo., July 14, 1890.

By direction of the Secretary of War, leave of absence for two months is granted Captain John F. Philips, Assistant-Surgeon. Par. 4, S. O. 164, Headquarters of the Army, A. G. O., Washington, July 16, 1890.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service for the three weeks ended July 26, 1890.

BAILHACHE, P. H., Surgeon. Granted leave of absence for seven days, July 26, 1890.

HUTTON, W. H. H., Surgeon. To proceed to Chicago, Ill., on special duty, July 24, 1890.

GODFREY, JOHN, Surgeon. Granted leave of absence for thirty days, July 21, 1890.

PECKHAM, C. T., Passed Assistant-Surgeon. When relieved at Memphis, Tenn., to proceed to St. Louis, Mo., and assume command of the service, July 9, 1890.

DEVAN, S. C., Passed Assistant-Surgeon. Granted leave of absence for twenty-five days, July 15, 1890.

KALLOCH, P. C., Passed Assistant-Surgeon. Orders of July 5, to St. Louis, Mo., revoked July 8, 1890.

WILLIAMS, L. L., Passed Assistant-Surgeon. Relieved from duty at Baltimore, Md., and to assume command of service at Memphis, Tenn., July 8, 1890.

PERRY, T. B., Assistant-Surgeon. To proceed to Baltimore, Md., for temporary duty, July 17, 1890.

STONER, J. B., Assistant-Surgeon. Granted leave of absence for thirty days, July 21, 1890.

HUSSEY, S. H., Assistant-Surgeon. To proceed to Pittsburgh, Pa., for temporary duty, July 18, 1890.

YOUNG, G. B., Assistant-Surgeon. Granted leave of absence for fifteen days, on account of sickness, July 12, 1890.

STIMPSON, W. G., Assistant-Surgeon. To proceed to Buffalo, N. Y., for temporary duty, July 12, 1890.

HOUGHTON, E. R., Assistant-Surgeon. To report to the Medical Officer in command, New York Marine Hospital, for temporary duty, July 14, 1890.

PROMOTION.

MAGRUDER, G. M., Passed Assistant-Surgeon. To rank as such from July 12, 1890.

APPOINTMENTS.

HOUGHTON, E. R., Assistant-Surgeon. To rank as such from July 12, 1890.

BENEDICT, A. L., Assistant-Surgeon. To rank as such from July 24, 1890.

Changes in the Medical Corps of the U. S. Navy for the week ending August 2, 1890.

BLACKWOOD, N. J., Assistant-Surgeon. Ordered to duty in the Bureau of Medicine and Surgery.

WALES, P. S., Medical Director. Ordered to duty in charge of the Museum of Hygiene.

STONE, L. H., Assistant-Surgeon. Ordered to the U. S. Receiving-ship "New Hampshire."

URIC, J. F., Assistant-Surgeon. Detached from the U. S. Receiving-ship "New Hampshire," and ordered to the U. S. Receiving-ship "Wabash."

NORTON, OLIVER D., Passed Assistant-Surgeon. Granted leave of absence for month of August.

BABIN, H. J., Surgeon. Granted one month's leave of absence, from July 23.

AUZALL, E. W., Assistant-Surgeon. Detached from U. S. S. "Galena," and wait orders.

ECKSTEIN, A. C., Surgeon. Granted leave of absence for month of August.

PENROSE, T. N., Medical Inspector. Granted leave of absence for two weeks.

CABELL, A. G., Passed Assistant-Surgeon. Granted leave of absence for the month of August.

ASHBRIDGE, RICHARD, Passed Assistant-Surgeon. Granted one month's sick-leave.

HEYL, T. C., Surgeon. Granted leave of absence for the month of August.

COOKE, GEO. H., Medical Inspector. Detached from Navy Yard, League Island, and to the "Pensacola."

WHITE, C. H., Medical Inspector. Detached from the "Pensacola," proceed home, and wait orders.

HOEHLING, A. A., Medical Inspector. Detached from Naval Hospital, Washington, and to League Island Navy Yard.

WELLS, H. M., Medical Inspector. Detached from Museum of Hygiene, and to Naval Hospital, Washington, D.C.

Medical Index.

A weekly list of the more important and practical articles appearing in the contemporary foreign and domestic medical journals.

Devoirs du médicin patricien et des administrations hospitalieres en presence d'une maladie infectieuse, Brunon. La Normaadie Méd.
Der gegenwärtige Stand der Lehre von den Hallucinationen, Mendel. Berl. Klin. Wochenschrift.
Despre actinnea therapeutica a acidului di-iodo-salicylic, Calalb. Clinica.
Despre iodhydratul de iodat de chinina in tratramentul accidentelor syphilitice secundare, Tzonicu. *Ibid.*
Despre aristol, Romano. *Ibid.*
Des tumeurs adenoides chez les adultes, Raulin. Revue de Laryng. D'Otologie.
Des mesures propres à rendre moins faible l'accroissement de la population de la France, Lagneau. Bull. de L'Ac. de Méd.
Du champ d'action du thermo-cautere, Panas. *Ibid.*
Departure from 98.4°; or a plea for a practical method in medicine, Frere. Prov. Med. Jour.
Dilation of the heart, some forms of, Handford. *Ibid.*
Di alcune condizioni patalogiche sperimentali che modificano l'attivita microbicida del sangue, Bonome. La Rif. Med.
Die Medianstellung des Stimmbandes bei Recurrenslähmung, Wagner. Arch. f. path. Anat. u. Physiol.
Die angebornen Kiemenfisteln des Menschen, ihre anatomische Bedeutung u. ihr Verhältniss zu verwandten branchiogenen Missbildungen, Kostanecki. *Ibid.*
Das perforirende Geschwür der Nasenscheidewand. Eine anatomisch-klinische Studie, Hajek. *Ibid.*
Der knöcherne Ersatz grober Schädeldefekte, König. Centralblatt f. Chirurgie.
Della distruzione dei microrganismi durante il processo di infiammazione. La Rif. Med.
Des chlorals, Sée. La Méd. Mod.
Du traitement hygienique de la tuberculose, et specialement de la cure à l'air et au repos, D'Aremberg. Bull. Général de Therapeutique.
Etiology and local treatment of phthisis pulmonalis, Shurly. Amer. Jour. Med. Sciences.
Early operative interference in acute peritonitis, Lydston. Jour. Amer. Med. Ass'n.
Exploratory Laparotomy, medico-legal aspect of, Wilde. *Ib.*
Electricity in ear-diseases, Jones. *Ibid.*
El microbia de la malaria o su evolucion en la sangre de los intoxicados. Confirmacion del descubrimiento de Mr. Laveran, Goronado. Cronica.
Estado de las defunciones y niemaientas del termino municipal de Marianao, ocurridas en el segundo semestre de 1889, Unance. *Ibid.*
Epilepsy and depressed skull-hæmorrhagic pachymeningitis and concussion, Osgood. Brooklyn Med. Jour.
Epulis, report of five cases, Rogers. Virginia Med. Monthly.
Etiology of diphtheria, Klein. Occid. Med. Times.
Extirpation of the thyroid gland, Huntington. *Ibid.*
Etiology of pleuritis, especially in its relation to tuberculosis, Smith. Med. News.
Extra-abdominal intestinal surgery, and the use of animal membranes as splices or grafts, Briggs. St. Louis Med. and Surg. Journal.
Eczema of hands, of face, McPhedran. Canadian Practitioner.
Ein Fall von spontaner perforirender Scheidenzerreissung mit vollständigem Austritt des Kindes und der Placenta in die Bauchhöhle, Genesung, Everke. Berl. Klin. Wochen.
Etude sur les principaux accidents de la chloroformisation à l'état normal, et dans quelques conditions pathologiques, Franck. Bull. de L'Acad. de Méd.
Epithelial cancer in a negress, Foster. Boston Med. Surg. J.
Empyema, Roberts. Amer. Pract. and News.
Extra-uterine pregnancy, occurring twice in the same patient, Meyer. Annals of Gynæcol. and Pædiat.
Ein Fall von Rhabdomyosarcom der Orbita, Zenker. Arch. für pathol. Anat. u. Physiol.
Eine Geschwulst der Schweissdrüsen (Cylinderepitheliom), Knauss. *Ibid.*
Emergencies demanding abdominal section, Sexton. Ind. M. J.
Etiology and treatment of migraine, recent observations in, Wharton Sinkler. Med. News.
Etiology in malarial infection and of the hæmatozoa of Laveran, G. Dock. *Ibid.*
Extra-uterine pregnancy, Bernardy. Ann. Gynæc. and Pæd.
Extra-uterine pregnancy, rupture of sac, laparotomy, recovery, Montgomery. *Ibid.*
Ensayo sobre los polypos laringeos, Budge. Rev. Med. de Chile.
Feigned cutaneous disease, Bowen. Bost. Med. and Surg. Jour.
False pregnancy, Madden. Amer. Jour. of Med. Sciences.
Ftisie miliara acuta san tuberculosa miliara acuta generalisata, Kalenderu. Clinica.
Fracture of the skull, Takaki. Sei-i-kwai Med. Jour.
Fibrous tumors of the pelvis, simulating ovarian tumors, Joubert, Medical Press.
Fracture of base of skull, aphasia, delusions, ultimate recovery, Norton. *Ibid.*
Fiebre de borras, Redaccion. Cronica.
Fracture of the shaft of the femur, Smith. Practice.
Frequency and character of pneumonias of 1890, Pepper. Med. News.
Fractures des deux femurs chez un enfant né en presentation du siège, Remy. Archives de Toxol.
Fievre typhoide, hemorrhagie intestinale, mort, bile de colorée, proliferation des noyaux des cellules hapatiques, Hallion. Fa France Méd.
Gastro-hepatic fever, Legare. The Med. Age.
Gonorrhœal diseases of the uterine appendages, Baldy. *Ibid.*
Gynecological society of Chicago, president's address, spina bifida. Obstetric Gaz.
Government aids to public health, Wyman. J. Am. M. Ass'n.
Glandular hypertrophy at base of tongue, lingual deposit, Thrasher. *Ibid.*
Gout, Rademaker. Am. Pract. and News.
Gonococcus and allied organisms, Shuldham. Med. Press.
Giant-celled sarcoma of the finger of unusual size, Ballon. N. Y. Med. Jour.
Gonorrhoic irido-choroiditis, Kipp. Med. Record.
Hemorrhoids, modern methods of treatment of, Duncan. Toledo Med. and Surg. Rep.
Head-nodding and head-jerking in children, commonly associated with nystagmus, Hadden. The Lancet.
Herida por instrumento cortante, tetanos traumatico, curacion, Albuerne. Cronica.
Herida por arma de fuego perforanda un pulmon, curacion por primera intencion, Albuerne. *Ibid.*
Hematoma of the ovary following chronic catarrhal salpingitis, Reed. Cincin. Lancet-Clinic.
How to make condensed milk a good food, Starr. Annals of Gynæcol. and Pædr.
Hydrocele following operation for radical cure of varicocele, stricture of urethra and rectal polypus. Rand. Brookl. M. J.
Hemorrhoids by injection, treatment of, embolism of liver, Peskind. Cleveland Med. Gaz.
How shall we reduce high temperature? Moorhead. Omaha Cl.
Hay fever, pathology of, Berkart. The Lancet.
Hypertrophy of adenoid tissue of base of tongue, Boylan. Jour. Amer. Med. Ass'n.
Hypnotism and suggestion, Tuckey. Prov. Med. Jour.
Hydronaphthol in the treatment of enteric fever and of diarrhœa, Clarke. The Practitioner.
Impressions of Colorado as a health resort, Bessey. Toledo Med. and Surg. Rep.
Intestinal obstruction, Curtis. Kansas Med. Jour.
Infant feeding, Longshore. *Ibid.*
Improved disinfecting and fumigating system at the Mississippi river quarantine station, Oliphant. N. O. Med. Surg. J.
Iritis catameniale, Trousseau. Archives de Tocol.
Infant feeding, some facts in, Thayer. Northwestern Lancet.
Phlebite cervico-brachiale dans la fievre typhoide, Girode. La France Médicale.
Relation of peripheral irritation to diseases of the womb and its appendages, Lee. Annals of Gynæcol. and Pædiatry.
Removal of very large tumor from neck, probably a diseased accessory thyroid gland, recovery, Barker. Brit. Med. Jour.
Radical cure of hernia, Kingscote. *Ibid.*
Radical cure of hernia with results of one hundred and thirty-four operations, Bull. Med. News.
Ueber eine eigenartige Geschwulstform des Uterusfundus, Pfeifer. Prager Med. Wochenschrift.
Ueber eine seltene Form v. Unterkieferfractur, Kerschter. *Ib.*
Uses of commercial milk-sugar in infant-feeding, Brush. Jour. Amer. Med. Ass'n.
Ueber ein Befestigungsinstrument für das Voltolini'sche Nasenspeculum, Flatau. Berl. Klin. Wochenschrift.
Ueber einen Fall von Rhinoplastik mittelst eines ohne Umklappung herabgezogenen Hautknochenlappens, Wolff. *Ib.*
Urethrotome for close stricture of the penile urethra, White. Jour. Cutan. and Genito-Urin. Diseases.
Ueber die subcutanen Drüsenerkrankungen im Spätstadium der Syphilis, Lustgarden. Wien. Med. Presse.

The Times and Register.

Vol. XXI, No. 7. NEW YORK AND PHILADELPHIA, AUGUST 16, 1890. Whole No. 623.

PAGE

ADDRESS IN SURGERY.

By Lawson Tait, F.R.C.S., Edin. - - - - 137

ORIGINAL ARTICLES.

INEBRIETY IN AMERICA.—HISTORICAL FACTS RELATING TO ITS STUDY. By T. D. Crothers, M.D. - - - - - - - - - - 144

MODERN PHARMACY CAN SATISFY THE REQUIREMENTS OF MODERN THERAPEUTICS. By Purnell F. Sappington, M.D. - - - - 148

THE POLYCLINIC.

PHILADELPHIA HOSPITAL:

Pleurisy. *Hughes* - - - - - - - - - 148

Pernicious Anæmia *Hughes* - - - - - 149

EDITORIALS.

OREXIN - - - - - - - - - - - - - - - 150

ANNOTATIONS.

Black Rot at Egg Harbor - - - - - - - 151

Poor Quality of Flour at the Norristown Hospital - - - - - - - - - - - - 151

Activity (?) of Australians - - - - - - - 151

PAGE

Vomiting of Pregnancy - - - - - - - - 151

Execution by Electricity - - - - - - - - 151

LETTERS TO THE EDITOR.

Restoration of the Nose After it had been Entirely Detached for an Hour. *Kelley* - 151

BOOK REVIEWS.

Railway Surgery. *Stemen* - - - - - - - 152

PAMPHLETS - - - - - - - - - - - 152

THE MEDICAL DIGEST.

Pyoctanin. *Kanne* - - - - - - - - - - 152

Acquired Color-blindness. *Thompson* - - - 152

Diphtheria of the Meatus Urinarius. *Brown*, 152

Cascara Sagrada. *Murphey* - - - - - - 152

Tetanus with Recovery. *Pratt* - - - - - 152

Albuminuria of Pregnancy. *Griggs* - - - 153

Gleet *Allen* - - - - - - - - - - - 153

Prescriptions from the Nervous Department of the Vanderbilt Clinic. *Starr* - - - - 153

FRENCH NOTES. *Roussel* - - - - - - - 153

Treatment of Rachitis. *Kassowitz* - - - 153

PAGE

Chromic Acid for Sweating of the Feet. *Journal des Maladies Cutanées* - - - - 153

Treatment of Hypertrophy of the Prostate. *Kobner* - - - - - - - - - - - 154

Chloride of Sodium in Facial Neuralgia. *Leslie* - - - - - - - - - - - - - - 154

Transmissibility of Tuberculosis by Musical Instruments. *Maljean* - - - - - 154

Notes Upon Somnal, the New Hypnotic. *Woodbury* - - - - - - - - - - - 154

The Mortality of Widowers from Phthisis. *Destrée* - - - - - - - - - - - - - 155

Ice in Strangulated Hernia. *Wilkinson* - - 155

Induction of Premature Labor. *Ahlfeld* - 155

Disinfection by Sulphur. *Baker* - - - - - 155

Disinfection by Fumes of Burning Sulphur. *Dujardin-Beaumetz* - - - - - - - - 156

MEDICAL NEWS AND MISCELLANY, 157

ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - - 159

MEDICAL INDEX - - - - - - - - - - 160

NOTES AND ITEMS - - - - - - - iv, xiv

Address in Surgery.

BY LAWSON TAIT, F.R.C.S., EDIN.,[1]

President of Mason College, Birmingham.

SURGICAL TRAINING, SURGICAL PRACTICE, SURGICAL RESULTS.

MR. PRESIDENT AND GENTLEMEN: I do not know that there is any position in which one who practices the handicraft of surgery could feel a more weighty responsibility than that which I now occupy, and if responsibility is the best measure of dignity, I frankly acknowledge that there is no position in the whole wide world that could, by any possibility, be conferred on me which I should regard as a higher honor than that which I am about to try to fill worthily in addressing this great Association on the subject and object of my daily life. Your corporation now is but a short name for the profession and practice of medicine and surgery throughout the English-speaking world, and that means our globular part of the universe. There is no need for me to offer an apologia for our professional existence. From the earliest time of which we have any historic record—and we can even assert what I am about to say in some directions for prehistoric times—mankind has ever been earnest and selfishly sincere in his efforts to diminish suffering, to prolong life and to cure disease. Generation after generation has made fresh efforts of its best and greatest in such directions as these, and ever and anon fresh victories have been won. Now, as before, we represent the best and greatest of these achievements.

That we have made mistakes; that we have had to confess that our favorite theories, and some of our best established practices in one generation have become the flogging posts of the next, is but to confess that we are human. Nothing is human if it can have no progress, and progress is impossible in all human affairs without error. Even the most perfect of human sciences—mathematics—has had, is having and probably will have in time to come, its evolutionary stages. Even the apparently finite doctrine accepted unquestioningly for nearly two thousand years, that two lines which are parallel can never meet in space, is being shaken to its foundation, and those who can approach space from the aspect of its fourth dimension are staggered to find that the shortest road between any two fixed points may not necessarily be in a straight line. With such awful examples before us; with the fear that even the treasured first book of *Euclid's* propositions may prove to be a fraud, we who practice a mere handicraft, but one of the utmost importance to humanity, have need to walk carefully. It is not necessary that I speak for the importance and dignity of our work, for that is admitted on all hands, even with full knowledge of our shortcomings. Admitted it is to the full, for there is none unwise enough to avoid the counsel and help we can give him when the inevitable hour of trouble comes for his turn. The scoffer may be what he likes when he is well, but when the abscess pains or the tumor threatens, his tastes speedily become monastic. Humanity has on the whole a complete confidence in us, not that we are perfect, but as far as we are so approached we honestly do the best we can. It behooves us, however, from time to time to search out the innermost corners of our chambers, to rid them of all uncleanliness, and then to garnish them and to set them in order, hiding no blemish, concealing from ourselves even no defect, but striving in all ways to the perfection of that noble work to which we have set our hands.

You have already been welcomed to this great human hive in the words of our eloquent President, and I wish to re-echo his welcome because I have, for

[1] Delivered before the British Medical Association. Printed from advanced sheets.

once in my life, an audience before me worth preaching to, and I wish that my sermonizing powers were equal to the occasion. You have come to a great home of industry, the very paradise of the handicrafts. I wish I had the tongue of a William Morris to sing their praises, but as you go through our workshops, even those of the humblest kind, you will see such wonders as would empty from sheer exhaustion even his silver store. To look at the work, you may think that as little skill as exists in human sense would be required to cut an ivory nut into what they call blanks in a manufactory of buttons; but as you watch the patient workman for a few hours, and then think you would like to try to rival his skill, you take your place at the saw bench, and if you are not preternaturally skilful it will be only after sacrificing a few of your fingers that you find yourself behind him inexplicably in every conceivable way; you would then begin to have some slight appreciation of the skill he has acquired even in that small department of human art. You would then begin to appreciate the principle we all value here so much, for it constitutes the making of our factories—I mean the principle of the subdivision of labor. In such an apparently rough, and certainly very humble employment as that of the cutter of the button blanks, which I have taken as my text, a few questions will help us to much thought, and the answers may excite in many of us solutions for problems which are greatly exercising the authorities of our medical corporations at the present moment. You will find that even the cutter of the ivory nut will prove to be a more docile apprentice, and a more competent workman, if he has had a good education before he enters the shop, such an education as we supply now in our Birmingham schools, in a fashion compulsory and almost free. I wish it were entirely free. The philosopher who asserts that liberal education will spoil the future craftsman is a mere bookworm, without a true knowledge of human power. We further find that our button cutter must go through a long apprenticeship to accustom his eye to judge the nut, to avoid its faults, to accustom his fingers to the sense of resistance, and even his ear to the sound of the saw. Mere general education will do nothing of this kind for him, but the general training he has had will open his mind first of all to the sublime advantage of accuracy in all things, and it will make his mind just so much the more receptive for the monotonous details of his work. Finally, it will make him in all respects a better citizen than he would have been without it.

We may easily, and I think justly, apply these facts to the training required by our own handicraft of surgery. Every one has something to say on this subject, and I do not see why I should refrain from expressing my views, especially when I find that the general course of opinion is running at the present moment on lines on which my own has always lain. A surgical craftsman must be a trained gentleman, accustomed by a classical education to use his native tongue with ease and fluency and without confusion. He must have the fundamental principles of reasoning and of business habits instilled into him by such mathematical training as will be involved in his being able to pass some one of the ordinary examinations now insisted upon by all the licensing bodies. If he can spare the time and money to become a graduate in arts so much the better. Up to this point we are all agreed. Our apprentice surgeon has now to enter upon his purely professional training, and to learn the constituent parts of the body and their functions; and here comes in our first difficulty. I, for one, desire to raise my voice in protest against the absurd attention to detail and the enormous waste of time involved in the present biological training of the surgeon student. Let him be grounded in every fact of anatomy which may, under the rarest and most unlikely conditions, aid him to appreciate the results of an injury, or a displacement, or of a new growth; let him be grounded in all such items of information concerning the ultimate structure of organs and their mediate and immediate functions, and the changes to which disease subjects them.

Let him be placed so constantly alongside somatic sections that he will not only learn his anatomy, but that he will never forget it. Let him see things and think of them so often that he will, as it were, see through his patient as this man sees through his nut before he cuts it up. But I plead most earnestly that your successors shall be spared that senseless grind at useless details of anatomy with which our own young memories were burdened—details which he can remember only by a demoralizing system of catch words—details which he prepares himself to forget the moment the necessity of examination is over.

Still more strenuously I appeal that our student be altogether relieved from that senseless system of biological training which has set in as a fashion at Cambridge, at Oxford, and at Edinburgh. Not many years ago I attended a lecture on physiology given to medical students, which consisted in an explanation of a brass instrument resembling a model of Clapham Junction, intended to explain something about muscular fibre. I could not understand it, of course, I was too much of an old fogy, but I had this consolation, that when talking over it with my young friends who had attended the lecture with me, they could make nothing of it either, and it worried them as much as it had worried me. But there was a difference between us—it was demoralizing to them, for it discouraged them, and small wonder! And how angry they must feel when they come to deal with human patients and human disease, that all these nonsensical details are of no use to them—not even for the purpose of general training—when they find, in truth, that the time occupied in mastering such subjects has been absolutely thrown away. For students who are disposed to appear for a science tripos, or who have such a line of life open for them or the tendency towards it, who are possible professors of anatomy or biology, this kind of work is of course admirable; but of our medical students, nine hundred and ninety-nine out of every thousand will have to find their positions at the bedsides of their fellow countrymen in times of accident and sickness, and there such knowledge is useless.

I remember that we had to learn that the direction of the anterior cornu of the fourth ventricle of the brain ran a course which was backward, outward, downward, forward, and inward, and we were enabled in the most improper way to remember these important facts by the word "bodfi." Has "bodfi" ever served any of you at the bedside? Is there any conceivable condition of human accident or ailment in which "bodfi" could assist you to relieve your patient? The students who continue to learn such matters will find, as I have done, that they will be of no assistance to them to estimate the character of a delirium, and no amount of knowledge of the arrangements of the electrical currents in muscular fibre will help them to determine the proper relations of a splint. What I wish for our students is that they should go back to the institutes of medicine and leave comparative biology to those who may be able to benefit by it.

Again let me remind you of the terrible task that we had to fulfil in committing to memory the names and relation, the ligatures and points of contact, of the bones of the wrist and of the ankle-joints. To me this task has never served in the faintest instance. If, unfortunately, I had ever to submit one of my limbs to a joint amputation, I should most unhesitatingly insist upon the selection of that devised by Mr. Syme. The other more fanciful methods of amputation I believe are constantly condemned for very many reasons. Still, it may be that occasionally—perhaps ten times a year in the whole population of England—they are performed. For some specific reason they are not performed by surgeons in the country, distant from reference libraries and anatomical museums, and men who elect to perform such operations can in the course of twenty minutes, or half an hour, master the relation of these bones sufficiently to enable them to carry out the particular object they have in view. The question which occurs to my mind with great force is, Can the occasional performance of these somewhat eccentric proceedings justify the infliction of the senseless labor of committing all these special peculiarities of these bones upon every medical student who has to appear for examination? I cannot imagine that the committal to memory of these peculiarities can in itself constitute any kind of mental training, and I think the present system of anatomical education involves a gigantic waste of time and much frittering away of serious mental effort. As these words were gathering themselves in my mind, I turned to a number of the *Journal* which had just appeared, and therein I found a most interesting—I may say a most amusing—account of "Modern Assistants," by "A Sufferer," the sufferer in question being a practitioner who had, by reason of his work, to employ a recently qualified young man as assistant in his practice. In language far more trenchant than I can possibly employ, he gives a line of argument which I appreciate to the full, and he finishes what he has to say in these two noteworthy paragraphs:

"But no reasonable person can doubt the superiority of modern methods of training over old-fashioned ones. Our fathers made their apprentices pay them for the acquisition of practical experience, while we, more liberally, subsidize medical tyros to gain experience at our expense. Our predecessors thought that much could be learned of art and something of science in the surgery of the private practitioner, and by the bedside of his patients; we, more modestly, hold that the necessary science can only be taught at the hospital bedside, even when overcrowded by a hundred students, while art we practically ignore; but wisdom after all is justified of her children, and modern methods can proudly point to their resultant—the modern assistant. In face of such a practical proof criticism is silenced."

"'Of course you can vaccinate?' said a surgeon to a doubly qualified and newly-fledged assistant the other day. 'No, I cannot,' was the reply. 'Of course, I hold the certificate of proficiency in vaccination, but I never vaccinated a baby in my life.' Could anything be more entirely satisfactory and excellent than this, or more reassuring?"

In the old days—days which I can remember—it was charged against the corporations that they turned out a large number of ill-educated, empirical practitioners, who knew nothing but their patients. Now I say the tendency is to turn out a still larger number, a very much larger number of scientific young tyros, who know neither patients nor their disease till they have gone through a second pupilage, extending for years after they have left their university. This second pupilage lies in the rough school of experience, and in its second training they will be found deliberately and at once to throw overboard at least two-thirds of what they have learned in the first. What the boy wants after his general education has been fully developed, and his fundamental knowledge of useful anatomical facts and physiological principles has been made perfect to the utmost of their extent for usefulness, and not one scrap beyond that, is that he should be dealt with as we deal with the cutter of blanks in the button manufactory. He should be put at once into contact with his material. I, therefore, vote cordially with those who demand the restoration of the apprenticeship system in such fashion as modern requirements indicate. It is of course no longer to be a seven years' slavery in mixing pills and spreading plasters, for the modern manufacturing chemist does all of that for us now, but it should be a period of at least two years spent in learning how to deal with patients, how to divine their peculiarities, and in learning how to avoid making an ass of himself in the sick room as the modern, newly-fledged, qualified assistant is certain to do for the first few years of his second pupilage, in spite of his biological lore.

The road to success in the practice of our art lies not only in knowing how to deal with disease, but how to deal with men and women while they suffer from it. Our biological practitioners have no experience of either of these lines of research, and they, therefore, fail miserably. I had to meet a most excellent and estimable practitioner of the old school in the North of England some months ago, and he told me that within a year he had had three assistants, all Bachelors of Medicine and Masters of Surgery from one of our most flourishing biological schools. "Sir, would you believe it,". he said to me, boiling with indignation as he thought of the needs of his large colliery practice, "not one of them could put on a splint? and the third was such an ass that he used to lecture a collier's wife on how fishes lost their eyes in coal pits instead of supporting her perineum." I am speaking from a lamentable fullness of similar experience, and I feel that no other remedy is possible than which I recommend, and the sooner we begin to cry out for it the better. Our corporations are deaf to our appeals upon such subjects, because their rulers no more understand the requirements of the general practitioner than they understand the Confucian system of philosophy.

The Council of the College of Surgeons is directing its system of examinations more and more in the ultra-scientific direction, and the demand of the members of the College for a reasonable share of representation on the body, which at present is the great manufactory of general practitioners of England, is largely based on this preposterous blunder. As I read the questions put to the candidates at the College examinations, I wonder more and more how such a training as they involve can by any possibility suit men for the every-day work of country practice. The new scheme of the University of London, under which the new university will be largely constituted by the two Royal Colleges, will only go to perpetuate the mistake. With a spirit of selfishness which is inexplicable, this new institution is to be confined, so far as its government is concerned, to the eleven medical schools of the metropolis, including the School of Medicine for Women, and all discipline of education and control of examinations will rest in

the hands of our metropolitan rivals. There will be, therefore, a constant struggle between those outside the charmed circle and those within its pale; and I speak for those of us concerned, as we are here for a large and growing school, who will find ourselves greatly handicapped in the fight. But we shall not be easily beaten. We believe in teaching our students what they can best use when they enter upon the struggle for existence, and it is upon that kind of material we want to have them examined. We therefore propose to agitate, without ceasing, for a more direct representation of the body of the profession at those tables where the direction of medical education and medical examinations are controlled. Upon one point we are coming to an agreement, and that is a demand for the restoration of the practice of apprenticeship. But I would carry it further. While the student is attending to this most important part of his training, he ought at the same time—and now I am speaking for those who have to follow the craft of surgery—to be taught how to use his hands. I should set him so many hours in the week, into the shop of the village carpenter, and I should have him trained to use a saw, a chisel, a plane, and a skew; so that he should be able to make a long splint, if need be, as well as to put it on. And into the blacksmith's shop he should also go, till he knew how to strike properly with a hammer. Some of you may think this may be unnecessary; but, if you could look with a workman's eye (as I can do, for I served my time at the lathe, the bench, and the forge) at a Fellow of the College of Surgeons—I won't give his name, but you will find him in almost every large hospital in the kingdom—who used a saw for the first time in his life in the amputation of a human leg, and see, as I can see, what a horrible mess he makes of his work, you will agree with me that a training in practical mechanics is just as necessary (I say it is far more necessary) for a man who is to operate upon his fellow human beings as is a training in anatomy.

The great difference between the man who starts his saw cutting from the point of the saw and the man who starts from the hilt is just as great, I think it must be much greater than the difference between the man who amputates a leg without any kind of knowledge of anatomy and the one who has such knowledge fairly perfect. During the two years that our student spends in this practical training for his after-life, he would unconsciously imbibe the fundamental principles of the scientific training which he would afterwards have to undergo; he would see for himself, day by day, the characteristics of wounds healing healthily, and how different they are from those of a wound indicating action the result of constitutional poisoning. The meaning of these differences he would learn afterwards at his clinical school. At present he can babble about the theoretical causes of the changes, but of their real facts and phases of them he knows nothing. After his apprenticeship, as he heard in the academical rooms the explanation of the process of the healing of a bone, he could recall to his mind illustrations in the practice he had already gone through, and the combination of the facts as he knew them, with their explanation, would impress the whole thing on his mind in a way to which at present it is a complete blank. As a matter of fact at present in medical education, the cart is being uniformly put before the horse. Impressions in youth are far better and more lastingly conveyed by the eye than by any other sense. Words referring to clinical systems and to physical diagnosis which are now a mere shibboleth to the student, would, under better arrangement, possess a living interest, and what is used merely as dead rote for the purpose of passing examinations, would survive for his lifetime as the guiding principles of his practice.

Having now delivered my soul concerning the training which I believe to be essential for the craft of surgery, I fall naturally into the utterance of some words concerning the practice of the art, and I pause at the outset in absolute wonderment when I contemplate what has happened in my own lifetime. The year 1847 was the real birthdate of our work, when there first fell upon man that gentle slumber, anticipated in the beautiful legend of the Garden of Eden when Adam's rib was resected, but which was not brought into the region of actual fact till that memorable night in Queen street, when Simpson, Keith, and Mathews Duncan "were all under the table in a minute or two," to quote Simpson's own graphic description. What had gone before that time was mere groping in the dark, and what has happened since could never have been ventured upon but for that greatest of all human blessings—anæsthesia.

That has been to surgery what the motive power of steam has been for the arts, manufactures, and for commerce: it has revolutionized everything in connection with our art. And yet we are so accustomed now to take the advantage as a matter of course that we have almost forgotten its history. We are apt to ignore the fact that all our brilliant advancements of to-day could never have been arrived at but for chloroform—we could not have developed the splendid work of the modern ophthalmic surgeon, and the modern development of abdominal surgery would never have been dreamed of but for the genius and indomitable fighting qualities of James Young Simpson, who thrashed out the victory of anæsthesia and gave us the anæsthetic which for more than half a century has held its own against all comers.

This, the greatest of all medical triumphs, at once broke down the barriers which had hindered the development of our art, and a vast change in surgical practice became apparent. Not only were the horrors of the surgical theatre banished, but the type of men who could and did practice surgery was altered—in some instances though, not for the better. In the days before chloroform, the man who "niggled" over an operation was avoided alike by patient and doctor. A man like Liston, whose manual dexterity is said almost to have approached the miraculous, had it all his own way. Syme returned from London to Edinburgh for many reasons, but no doubt chiefly because his comparative defective manual dexterity was very apparent in contrast to many of those with whom he had to be in rivalry. He never could cut decently for stone to the end of his days, and but for the aid of the chloroform of his greatly disliked colleague, we never could have had the splendid philosophical principles of surgery which Syme laid down. He never could have been the surgeon he was, without the encouraging influence of an anæsthetic.

In fact, the history of this epoch of surgery is one of the most interesting there is, and I venture to say by far the most important. Indeed, it is only by reason that we are more or less all part of it that we do not see how overwhelmingly important the transaction effected in the years between 1850 and 1865 has been in the development of our art. In that time appeared men like Paget and Savory, who never could have been surgeons as Liston, Fergusson and Miller were, but who lived, and mostly are living still, to fill a higher and more useful post. They became the sur-

gical pathologists, among the first of whom in date we have to put Stanley, and now they are a goodly army. They have lifted us from mere handicraftship to something approaching a science—approaching the position of a science more and more every day.

But in addition to this, probably the best result of the change effected by anæsthetics, another of great interest arose about the same time. With the possibility of human benefit came a huge extension of the number of cases, not only of those suitable for the new work, but of those who could bring themselves to submit to it. Before the days of chloroform, vast numbers of men died of stone in the bladder rather than submit to the torture of the operation. Nowadays nobody is foolish enough to refuse to submit to the operation. Operationswere comparatively rare,and they were made the subject of vulgar theatrical display. I remember that when Syme had to tie an iliac artery or remove a tongue, he would have seven or eight hundred people from all over the country to "assist," as the French say, for only two or three could see what he was doing.

This strange perversion survives even to this day, and it makes me often sad to hear of the anxiety professed by many of my profession to "see" some great surgeon perform some big operation—an operation they themselves would never entertain a wish to undertake. Such performances, I think, ought to take place only in the utmost privacy and be witnessed only by such as can really be benefited by observing them, that is, men who wish to engage in operating practice and are likely to have fields in which to fulfil their wishes. Of course, there are some operations to be excepted from such remarks, and the real intention of what I have said must be clear enough to every one—for an operating surgeon to have a theater full of second year students, merely for the purpose of being able to say that they were in the same room with him, is a useless waste of time for the students, and for such purposes I wish all operating theaters were closed.

I have said the number of cases for operation vastly increased after the introduction of anæsthetics, and with this increase it became perfectly evident that no one man could grasp the whole realm of surgical work. The subdivision of the work became inevitable, and the best and first example of this subdivision came in ophthalmic surgery.

I have not asked Sir William Bowman, nor have I inquired of Mr. Anderson Critchett concerning his distinguished father, I have merely gone to the old medical directories for dates and I find the story told concerning these two men who were the first, as they remain still the greatest, of the pure ophthalmic surgeons we have possessed to be as follows: In 1850 Bowman was assistant surgeon to King's College Hospital, and assistant-surgeon at Moorfields; whilst Critchett was assistant-surgeon at the London, and full surgeon at Moorfields. Bowman left King's College in 1862, and Critchett left the London in the following year, after a very short tenure of the full surgency, and these dates are of the greatest interest, as they allow of just sufficient development of ophthalmic pathology by Helmholtz's great invention, to have persuaded both of those of whom I speak that their true vocations lay at Moorfields, where they both remained till 1877, and that they could not well combine rough general surgery with their finer work on the eye.

There are some of whom it would not be true, but as a rule it is now quite true, that a man to succeed in ophthalmic surgery, must practice it exclusively, and I fancy that any exceptions would go far to prove my rule.

In abdominal surgery nothing was really done, if we except the truly brilliant achievement of Ephraim McDowell, before the days of anæsthetics. It is true that in this country a few parovarian cysts were removed, and a still smaller number of very simple operations for ovarian tumors were completed; but there is little doubt that whenever any serious complication was met with, the abdomen was promptly closed. No solid tumor was completely and successfully removed till that now before us fell to the hands of my valued old friend, John Day, of Walsall, who was gathered to the majority only a few months ago. The greatest advance of all—the intra-peritoneal treatment of the pedicle by means of the cautery in the hands of Baker Brown, giving a mortality of ten per cent.—was the real starting-point of all our progress, and that proceeding would have been an absolute impossibility without the aid of an anæsthetic. Then came Spencer Wells, who, with his precise methodical plans and steadfast business-like habits, which have characterized all he has done, has established abdominal surgery as a distinct specialty. For this, as well as for much more, I and others owe him much gratitude.

As the practice of surgery has grown, so have the arrangements and provisions for its pursuit become enlarged and altered to suit the varying requirements. Great changes have been necessitated in our hospitals and in our medical schools, changes again to be traced directly to the inestimable benefit of anæsthetics. When I came to Birmingham in 1870 there was practically no hospital between Summer Lane and Stafford, or between Bath Row and Worcester. The towns round about us were supplied by old-fashioned dispensaries, where bronchitis was treated in the winter and diarrhœa in the summer. Serious accidents and important surgical cases were all jolted into the General and Queen's Hospitals. Old John Burton, of Walsall, aided by Sister Dora, had just begun to show, in 1870, what a cottage hospital could do. Now we have not only cottage hospitals innumerable, but we have palatial receiving houses for accidents and urgent cases at Dudley, West Bromwich, Walsall, and Rugby, and many other important centers. These local hospitals would do credit to any community, and the surgical practice in these institutions is quite brilliant, as many of you know. We have now in our midst a Hospital for Diseases of the Eye superior to anything of the kind, and its four surgeons, engaged exclusively in special work, are not excelled in the excellence of their results throughout the wide world. Not only so, but ophthalmic hospitals have appeared in smaller centers, as Shrewsbury and Wolverhampton, which have already acquired highly deserved reputations under the care of men who do not engage in special practice nor in general surgical work. A new feature has appeared at West Bromwich, for which I predict a rapid extension and splendid results. An enlightened committee has engaged the services of a special ophthalmic surgeon from a distance, at quite a handsome salary, to attend to their ophthalmic cases. The same committee has for many years engaged my own services for special cases, with the rank of consulting surgeon, but as the cases are few the handsome salary in my own instance is yet merely a prospect. In this same line another well pronounced division of surgical work has been accepted in Birmingham and the Midland district, of which you have heard something in another place from the lips of my highly

esteemed colleague, Dr. Savage. Here, more than anywhere, can be seen the triumph of anæsthetics, for not one of our modern advances could have been accomplished without them. Jean Louis Petit planned and described in detail the method of curing the troubles of gall-stone in 1745, but they could not be carried out till our patients were soundly under chloroform

The rearrangements of hospitals necessitated by the changes just described have had a most wholesome result on the practice of surgery. The crowding of our two large hospitals by cases of compound fracture and amputations has been sensibly diminished, and the cases are treated far more safely and quite as well in the cottage hospitals nearer the place of accident. The surgeons to our large hospitals are becoming much more of the special consulting and operating surgeons, and less of the senior general practitioners than they used to be; and in our smaller centers are being trained men competent in the highest degree to deal with the ordinary surgery of everyday life. In their turn these men are recognizing the advantage to their patients and themselves of yielding up the grave responsibility of special and exceptional cases.

By the development of specialism, and the establishment of a set of men in our midst who are not in any way engaged in general practice, I venture to think a great many advantages have been gained. Of this not the least is that the public derive what benefit consultation may give at the onset of their ailments instead of at the end, for I venture to say that nowhere now in this district are serious abdominal symptoms encountered without a speedy summons being sent to one of us who practice in that department; and it is in no small degree owing to the foresight and prompt action of our brethren who seek our help that we have the success which has crowned our efforts. Unless those who practice such a specialty have the confidence of their brethren by keeping clear of general practice, no such satisfactory results can be gained.

In dealing with the third division of my subject I have less clear ground upon which to go, and I fear I must depend more upon what I wish were the facts than upon what can be actually shown in their present existence. But I sincerely wish that we had better surgical results than we have; I wish we knew more exactly what they are; and, most of all, I wish that we could go about establishing them in a more logical fashion.

It has often been said that the greatest of the gifts of God which take the form of genius, I mean oratory, is the most potent of all for immediate effect, but most transitory for fame; and so it is with the sister histronic art. The dead printed matter (all that we have left of John Bright) gives not the slightest idea of the great artist he was. The phonograph may alter all this, and the orators of the future may enthral audiences as much as the skill of Leonardo captivates you in the Refectory delle Grazie at Milan, just as it could have done four hundred years ago. We have no such promise for the fame of the surgical artist, for he and his handiwork perish alike, leaving nothing but the bald and printed statement of cases. The limner's work lives almost for all time, and the sorrows of Ursula affect us quite as much now in the hospital at Bruges as when Hans Memlink first depicted them. We have only one comfort. In the days which Edward Bellamy predicts, and for which William Morris pines, the limner and the surgical artist will be the only highly paid craftsmen, for their art will remain something unapproachable by mechanical contrivance. This may be or may not, but it is a compliment of no small excellence that so great an authority ranks our craft so high.

In the results of our work we have much cause for congratulation, but I would rather look on the other side of the fence and wonder if they could not be improved, even with the methods we have now at work. For the last twenty years we have first been opposing a great theory, then we have been accepting facts on which it was based, then we have been rushing into violent and illogical enthusiasm about it, only at the end of all to throw doubt and dispute on the whole field. I confess I always doubt surgical theories, just as I doubt all theories of art. The greatest painters have been the least trenchant about theories. Turner never had a theory of any kind, and always used bad pigments; and John Brown tells us that Guido mixed his colors with brains, and could get no further explanation of his results. No school of art which started on a theory has ever made a lasting impression. The modern school of the pre-Raphaelites gathered adherents, it is true, but they have nearly all deserted their theories on finding that the Dutch school knew far more than they did; the Flemings had all their excellencies without falling into their errors. The Impressionists were similarly a failure. Our surgical theories never lead to anything; not even the great antiseptic theory has led to any tangible result beyond what every housewife knew before its day, namely, that dead moist organic matter will decompose if some agent or other gets to it. We know now the exact nature of this agent, but this is a new fact, not a new theory. The theorists forget that living tissue will not decompose under the access of the same influences—influences, indeed, which surround us at every moment of life, and pass by harmlessly. Now the theorists take a lingering farewell of their lost darling by saying, "Well, at any rate, it taught us cleanliness." As a matter of fact, the very reverse of this is true, for it was the arguments of those who opposed the antiseptic theory which demonstrated the successful cleanliness. The last phase of this discussion—I sincerely hope the very last—is the antiseptic accoucheur who pleasingly fancies that both his theory and his practice are new, whereas in matter of fact Semelweiss literally died for them nearly thirty years ago. No more instructive reading can be indulged in than a brief monograph which has recently been issued concerning the history of this truly great man—a man so great that I think he deserves to have erected to his memory a statue in every civilized country. Semelweiss had no theory, he simply stated the fact that puerperal women in Vienna were poisoned by dirt. "Wash your hands," he cried, "and the women will not die," and his colleagues ruined him for his frankness. But he persuaded the world he was right. Simpson took up the fight with his accustomed vigor, and carried it through, and now, forsooth, we hear of the antiseptic theory as applied to midwifery as a new thing.

What is wanted for the improvement of our surgical results is not any more theories, but better work and better systems of working, preceded by better systems of training. We forget that an art like surgery cannot be acquired by passing examinations. It is true that examinations admit to our academy schools in art, but they are merely for the purpose of selecting candidates upon whom it is likely that benefit will arise from the teaching which there can be obtained. Surgical art is not conferred upon the

successful candidates by the College of Surgeons' parchment for the Membership, still less by that for the Fellowship. Like all arts, surgery requires some indescribable gift, easily recognized and appreciated when seen, but wholly incommunicable by diploma or otherwise. With that gift the art may be acquired by persistent labor, but without the gift the labor is hopeless, and that this fact is being recognized in all our large centers of population, even in the close hospital corporations of the metropolis, is one of the most hopeful signs for better surgical results. Another hopeful sign is the demand for complete and accurate statements of results. Public attention is now being drawn very largely to the question of hospitals in general, and a most wholesome rivalry is being established upon the question of results ; so much is this the case that grave suspicions are being entertained regarding all institutions which neglect or refuse to publish their results. I remember very well that when engaged some fifteen years ago in writing a book on hospital mortality, I asked a large metropolitan hospital to furnish me with the facts of their amputations for a period of sixteen years. The hospital was notoriously reticent upon all such questions. The medical board answered my request by a resolution that it was not expedient to furnish me with the information required. I replied that if they did not furnish me with what I wanted within a month, I should publish their resolution in the *Times*, and, as this hospital was entirely dependent on annual subscriptions, they reconsidered their decision. Their amputation results were ghastly ; probably they did not themselves know how bad they were. Publication of these results had a marvelous effect, for now the same hospital has an amputation mortality of less than one-half what it was sixteen years ago.

To Sir Spencer Wells is most undoubtedly due the credit of putting the publication of surgical results on a business-like basis, and the extension of this ought to be encouraged in every possible way. When the results in abdominal surgery, which began to be obtained about twelve years ago, were first published, they were so amazing that the favorite criticism of them was that they must be lies—a complimentary method of criticism which, it may be mentioned, was meted out to Ephraim McDowell. This sort of thing at first was very irritating, and used to make me very angry ; but for many years past I have ceased to trouble about it, and the incredible things of eight or ten years ago are now matters of every-day experience. My present desire is to urge, in every possible direction, a careful classification and publication of surgical results as one of the best methods of improving them, for it is clearly necessary, first of all, that we should know what our results really are, before we can see the necessity for their improvement ; and, secondly, it is only by the comparison of the results from different hospitals and different surgeons that it is likely that we shall start rivalry and inquiry as to the causes of the better results.

Another great advance required is the divising of logical plans in recording and classifying the results, and also the adoption of reasonable methods of conducting the investigation. For example, no one would now, in making a research on the mortality of amputations, arrange his figures without a careful separation of amputations for accident, and those for disease, and a perfect arrangement of the cases according to the limb affected, and the point of amputation. But until Simpson pointed out the necessity for such divisions, the importance of them was not clearly understood, certainly was not fully admitted. Arising out of a matter so simple as this there are, there must be, scores of points which require settlement, yet no serious attempt has been made even to indicate what such points may be. It may be, for instance, that one particular method of flap making will suit primary amputation better than another, and a point so important could be settled in twelve months by a simple agreement amongst a group of hospitals and their surgeons. Let one set of men work steadily at one method for one class of cases, and another set at another method, and the statistical laws will be found faithful to the truth as they ever are when the figures are large enough. Instead of adopting a method like this, our present method is that when such a point is raised for discussion, surgeon after surgeon rises and gives vent to vague impressions which he is pleased to elevate by the name of opinions. The fact is that every one has been trying all the plans in a disconnected, illogical way, from which truth never can be evolved. One of the many things I admired about Tom Keith was the religious way he stuck to the cautery in treating the ovarian pedicle. Nothing could shake him. I was equally obstinate in my adhesion to the silk ligature. The result was that when we came to compare notes, after many hundreds of ovariotomies, we found that so long as the bleeding from the pedicle is effectually stopped, and the pedicle carefully dropped back into the peritoneal cavity, it does not matter a pin how it has been treated ; and that I venture to say is a surgical conclusion, not only of the utmost importance, but one which never can be contravened. The so-called discussion on special subjects, which are now fashionable at our annual gatherings, illustrate well how utterly futile our present method of research is. Take the case of the kidney. We have half a dozen men discussing such a question as that of removing a suppurating kidney, as a primary operation, or subjecting it to a preliminary drainage, and when you have heard all that they have to say, you are no wiser on the subject. But if four men would subject all their cases to one method, and four others would confine all their work to the second method, within five or six years the question would be definitely and finally settled, and the probability is that we should have determined, as a definite conclusion, that in all certain well-defined cases the best treatment was the first method, whilst in another class we should probably discover that the alternative was the better choice. The latest instance of this kind is the question of lumbar *versus* inguinal colotomy, concerning which I am certain that the shield has a silver as well as a golden side, and that our present method will never enable us to differentiate the two metals.

Some such plan of research as I have described would very clearly indicate in which set of conditions which proceeding ought to be adopted. It may be urged against my proposal that such a plan of research would hamper liberty of action ; but I answer that our present liberty of action is not wise—indeed, it is not liberty at all, but license.

Let me take a personal case. It is well known that I adopt a special method of treating uterine myoma, and that there is a rival in the field in the shape of the electrolytic method. It is a charge also against me that I will not try the electrolytic method—a charge to which I readily plead guilty, and for this conduct my defence is simple. I say that no logical and complete conclusion can be arrived at by everybody treating everything in every kind of way. Having opened out a continent, I want to know all about

it. I pursue, therefore, all the windings of its rivers, and I measure the heights of all its mountains, and I give you the results of my ten years' wanderings. Let the electrolycians do the same, and then you shall be the judges, not upon men, but upon principles. If the primary results of the removal of the uterine appendages are satisfactory enough to justify the experience being continued over an area of about four hundred cases, the judgment will rest upon the ultimate and permanent results. If the results of electrolysis are given with the same fullness and with equal authentification, and are found to be better than those of surgery, I have no more to say on the subject, and shall take a back seat. But meanwhile I am sure, in the interests of our art, that it is better that I should continue my research in a logical fashion, unhampered by qualifications which would make a just conclusion on your part an absolute impossibility, and which would lead to nothing in my own mind but confusion.

On the other side of this most important question lies another grave source of error, which is too true of our research into surgical results, though it is far more extensive in its results in general therapeutics in the practice of medicine. No sooner is a new drug placed on the market than everybody rushes to try it. At first all is well, and "rubbishin" is good for everything. Then come a few isolated hints about the "toxic effects of 'rubbishin,'" and finally "rubbishin" gets dropped altogether, and we hear no more about it. It is positively awful to think of what some of these new drugs—say chloral, for instance—may have done before they got settled. For the mischief that is done in this way the public is largely to blame, if indeed it is not wholly to blame; they like the idea of a new discovery, especially the upper classes, and I am told by men practising near the dwellings of the princes of the land, and at fashionable watering places, that the great burden of their lives is to keep up with the new drugs and the new dodges. People who live in such houses and such places always have a smattering of such things, and they judge a man harshly who is ignorant of them. For my part, I instinctively distrust men who are always going in for new drugs, and for myself I will have none of them. In our surgical results there is too much of the same thing. Take the case of Dieffenbach's operation for squint, a most useful proceeding judiciously applied over a limited area. But I remember the time when every urchin with a squint was collared in the street and walked into the operating-room to have one rectus divided in order that its opponent should have full power to swivel the eye out in the opposite direction. Everybody was "doing squints." Similarly, when removal of the uterine appendages was proposed, but long before the just and true principles on which it is now based could be formulated, everybody rushed into the trial of it, and the result was a disastrous epidemic, the chief burden and discredit of which fell upon me.

I was more horrified than I can tell, and much of my time was taken up in disclaiming the doubtful honor of what was called "Tait's operation," in the performance of which every principle advocated by Tait was neglected or deliberately outraged. If the men who engaged in this work had waited for a reasonable trial, a fair discussion, and a just verdict, much discredit for our art would have been spared us. The just verdict has now been arrived at, and the misrepresentation, of which this operation was the center, has now ended. But the example is a very telling one in illustrating the want of logical application in our present method of research upon surgical results.

This vast and powerful Association could accomplish almost anything it wished after determining that it was for the good of the world, and after a reasonable method was pointed out for its accomplishment. We tried an expensive experiment in the way of a collective investigation, but from intrinsic reasons it was a failure. The fact is that its plan was lost in diffuseness, and defeated by the machinery involving a vast number of contributors—in fact, to increase the means of success involved the very essence of increase of risk of failure.

If you want a thing done well, you must either do it yourself or trust it to a very small number of workers. I do not think it would be too much to ask our Association to do to place every new drug and every proposal for a new surgical proceeding under the observation of a small responsible committee, whose judgment should precede anything like a wholesale experiment by the professional public at large. This step, which, to some extent, has already been taken in the formation of a Therapeutic Committee, might, with advantage, be extended to surgical proceedings, and would certainly clear away a vast amount of rubbish, and would direct more extended research into definite lines, instead of the indefinite and hap-hazard roads it now runs upon in almost every instance. And I cannot help feeling it would prevent us doing the great deal of harm which is now done in the early stages of even our best proposals.

My proposal may be crude and unpracticable. It may be easily perhaps displaced by some other and better. But if I have only imbued you with the necessity for reform I have gained my end, and shall have accomplished the object of this Address in Surgery.

Original Articles.

INEBRIETY IN AMERICA.— HISTORICAL FACTS RELATING TO ITS STUDY.[1]

By T. D. CROTHERS, M.D.,
Sup't Walnut Lodge, Hartford, Conn., and Editor Journal of Inebriety.

I PROPOSE to give a general outline of the most significant facts apparent from a review of the present state of this subject. The term inebriety is used in its broadest sense to express all forms of excess from the use of alcoholic drinks. In America inebriety comes most frequently from three distinct social classes. The first use wine and spirits regularly at the table, as tea and coffee are used, and become inebriates from physical and mental shocks, strains, sudden depressing emotions, severe exhaustion illness or injury, etc. The children of such persons are always more likely to become inebriates. The second class are born of weak, diseased parents, brought up in bad surroundings, where every impulse is unhealthy and perverted, and alcohol is familiar to them from childhood. A third class are temperate up to the time of entering into business or the active duties of life, then from special cause become moderate drinkers, and later are inebriates. They may be temperate half a life-time, then suddenly develop inebriety. Heredity is most marked in the first class, and is always a sign of physical and mental degeneration in the second class, while the third class are most frequently the outgrowth of habitual neglect of healthy living and general exhaustion of all the func-

[1] Read before the London Branch of the Brit. Med. Ass'n.

tional activities of the body. Dipsomaniacs come in the first and second class, and the steady and irregular drinkers are found in the last class. The exciting cause is very often imperfect nutrition and want of rest; in others, psychical states of depression and exhaustion, from many causes, precede the drinking. These conditions can be traced, and are often clearly outlined in many instances; in others they are obscure. Inebriety in America is more impulsive and precipitate than in other countries, the period of moderate drinking is less marked, and the average life of the inebriate is shorter. Among the many reasons for this are the tremendous activity and competition in the ordinary work of life, the intensity of living, the constant excitement and changes, filling every moment of time, calling out every energy, putting them in a constant strain, followed by want of rest, neglect of the healthy functions of the body, etc., etc. Add to this the constant practice of using the strongest alcohols at all times and occasions, and it will be seen that the average American must of necessity possess less resting power, and will fall a victim more readily to the action of alcohol.

The effects of these influences are marked psychologically in the character of the inebriety seen in America. When under the influence of alcohol the average American is full of delusions of speculation for wealth, power, and political achievement; his ideas flow in a channel of great events, and great schemes for the welfare of the nation and the races; he is rarely a wife-beater or avenger of personal wrongs, but may be prominent in a mob to destroy some great evil, or foremost to break up some old order of events which are supposed to be blocking the wheels of progress. The inebriate American will always be found in the van of every new project in politics, social science, religion, and business, and, like Col. Sellers, is buoyed up with the stimulating hope of "There's millions in it." The records of courts rarely exhibit brutal crime among inebriates who are Americans, but great schemes of companies, frauds, and stupendous swindles, for money or notoriety, etc., etc., are common among this class. The increased consumption of all forms of alcoholic drinks, which is far beyond the average gain of population, gives unmistakable indications of the rapid increase of inebriety. This is confirmed by the courts' records of drunkenness in all the large cities and towns, and also from comparative evidence of the mortuary statistics which point to a rapid increase of these diseases which are most common in inebriates, namely, insanity, paralysis, and acute affections of the heart, kidneys, and lungs. It may be said, beyond all doubt, that inebriety in America terminates most frequently in acute organic affections of the body. Another fact of great interest is apparent to the psychological student, namely, that inebriety in America moves in waves and currents, with a decided epidemic and endemic influence. This can be traced to the rapid increase of drunkenness in towns and cities, and after a time a reaction sets in, and a marked decline follows; the latter is seen following the temperance agitation and revivals. In some cases this is traced to special causes, such as financial depression, great social changes, etc.; at such times moderate drinkers become pronounced inebriates, and weak, nervous organizations fall into inebriety. This increases up to a certain point, then from some unknown psychical force declines, and a revival of temperance efforts follows, with a decline of inebriety to a minimum. These waves and inebriate storms that sweep over large circles of country, are always followed by intense revivals of temperance interest, and are fields of the most fascinating psychological interest yet to be studied. Inebriety among American women is unboubtedly becoming more pronounced every year. Although it is more covered up than in other countries, yet its increase is apparent in the great demand for narcotics, and the sale of beer and wine by grocers; also in the divisions of saloons into general and family entrances, with separate rooms for each. Among the better classes of women, wine and spirits are less openly used, and social drinking more rare. The same is true of all classes except those of foreign birth, who still cling to the old custom of public drinking. The same general causes govern women that are noticed among men, only varying in degree; hence, while women do not use alcoholic spirits as men do, undoubtedly they consume all forms of narcotics in excess of other classes. Their peculiar sensitive organization demands narcotics as a relief from the strain and exhaustion to which they are constantly subjected, and this is a source of great peril to the future of the American race.

In this brief outline of the nature and character of inebriety, it may be said that American inebriety is more often a pronounced form of brain and nerve degeneration, and that it comes from well marked physical conditions, largely controlled by social and psychical states peculiar to America. Its symptomatology more nearly resembles that of insanity and general paralysis; its course is in waves and currents; its progress is shorter; and among women the use of narcotics is more prevalent than of other forms of alcohol. A history of the study and means used in the prevention of inebriety would fill a volume, and be of intense historical and psychological interest. It will be found to follow the lines and history of every scientific advance, passing through the same successive periods of credulity, superstition, inquiry, and acceptance as actual truth. I shall, in this brief sketch, group some of the leading facts under two heads, viz.: *The empirical, legal and moral stage of the history and the rational and scientific period.* The earliest organized effort in modern times to prevent inebriety, was a temperance society which began in New York State in 1828. The object of this society was to aid others in pledging themselves to abstain from all use of spirits, and help each to carry out this resolution. From this beginning have come all the varied temperance societies which at one time or another have been prominent in nearly every city and town in the country. The growth of this movement has been wave-like, appearing at times very prominent, and extending over the country, enlisting all classes for a season, then dying away. The Washington societies began in 1840, and in two or more years numbered many thousands among it members, but were, ten years after, practically unknown. These organized efforts, now seen in one form, then in another, have been gradually growing into more settled methods and on better plans of action. The churches have taken hold of the work, and, upon the theory of vice and sin, denounce the inebriate as a sinner, who prefers to drink and do wickedly rather than be temperate and live a Christian life; from this they have urged, as the only remedy, prayer, conversion, and a religious influence. Great revival movements based on this theory called "Gospel temperance work," have swept over wide sections of the country, creating much excitement. States and districts have been divided up and workers sent to make a thorough canvass of each section, holding meetings and urging all to sign the pledge and abstain from the use of spirits. Some of these temperance societies have very systematic organizations extending over many

States, with national councils, corps of lecturers, society papers, and large volumes of transactions. The prohibitionists, or those who would stop the sale of spirits and increase the punishment of those who use it to excess, urge that it be made a political issue, and enforced by laws. They are sanguine that this is the true remedy to remove this evil. All of these society efforts fail to work harmoniously to one end; hence their labor is not productive of results that last. One reason for this diversity is said to be the growing conviction that the temperance question will enter into party politics in the near future, then the struggle will be between these varied organizations for recognition. Within a few years all these and other labors in this direction have become very active, and now nearly all the Legislatures of the different States are urged every session to enact laws controlling the inebriate and the sale of spirits; also great summer mass meetings are held to urge the people to sign the pledge; church conferences devote days to the consideration of the subject. These are only general outlines of the work to-day in America, which, is growing more intense and active. It is clear to all who look over the field, that this is especially a period of agitation, from which the real work will by-and-bye emerge, along lines entirely different from that seen at present. A glance at the literature will show the same ephemeral and transitory character. At first, papers, tracts and sermons of an exaggerated sensational character, then gradually these are replaced by facts and arguments which come in the province of every one to determine. As the subject became better known, efforts to educate the public in regard to alcohol and its uses or abuses have followed. To-day the publication of a number of semi-scientific works devoted to alcohol and inebriety is a promise of great significance for the future, although some of these publications are dangerous because of the half truths they contain, from which conclusions and inferences are drawn by the reader which a better knowledge would dispel. Large publication houses are devoted exclusively to temperance literature, and issue great numbers of books, magazines, papers, musical works, etc. It may be said that in no other country is there so much printed matter relating to inebriety coming regularly from the press. Nearly every society and church organization is full of enthusiasm to create public sentiment by the printed page, as well as by the public lecture and sermon. The value of these means can be estimated only in the most general way. The fact of inebriety steadily increasing indicates clearly that no direct results follow these efforts, and that only in some indirect way, not clear at present, can these means lessen inebriety and save the drunkard. A study of the local influence of this temperance work in several communities will furnish some light or explanation why it is not more effectual all over the country. Here it will be found that the means used are addressed almost exclusively to the emotional side of the inebriate; that appeals to his reason, pride and religious faculties are very often sources of irritation and exhaustion, permitting no rest to the emotional nature, and by trusting to glittering hopes not founded on physical states, the failure is always followed by reaction and loss of nerve force, making the last state worse than the first. Also it will be apparent that a certain number of persons will become profoundly impressed by the means used by societies, and take on a condition which may be termed *psychical shock*, in which they will remain temperate ever after, on the same principle that a certain number of cases will recover from the apparent application of any remedy, no matter how absurd. In cases of fever a certain number will recover by the application of the pledge and prayer; but no data could be drawn from this to warrant the general use of this method in all cases. The conclusion is clear that a prominent cause of the want of results from the varied temperance labors is that the means used are not adequate to the end sought; hence, cannot lessen inebriety or reform the inebriate, for the reason that they are not along the line of nature and its fixed laws. The *legal methods of curing inebriety* by *fine* and *imprisonment* are universally acknowledged, by all who have made inquiries in this direction, to be failures. The punishment of an inebriate by placing him among criminals, in bad physical and worse mental surroundings, in which nothing but alcohol is removed, in a large majority of cases, precipitates him into chronic stages, and removes him farther from hope of recovery. Of 1,000 commitments in New York City for inebriety, 936 have been sentenced before from 2 to 28 times. In the city of Albany, in 20 commitments for the first time for inebriety, 14 of this number were repeatedly returned for the same cause during the next five years, 2 died and 4 were lost sight of. Officers of jails and prisons and magistrates of all district courts are united in condemning the legal methods of suppressing inebriety. But they are powerless to change these methods. The very object and purposes of the law are defeated, and a class of incurables are raised up that are a perpetual menace to all law and order. The value of total prohibition enforced by legal measures is yet on trial as a practical measure for the cure and prevention of inebriety. In some States its workings are said to be very encouraging. How far the legal restriction of sales can break up inebriety must be determined in the future. It is clear that this and other measures for the benefit of the inebriate can be more thoroughly tested in America than in any country of the world, because society is less fixed and more flexible, and the application and indorsment of practical measures are more readily entered upon than in other communites.

The second period—the rational or scientific epoch—began in 1790, when Dr. Rush, a distinguished physician of Philadelphia, urged that inebriety was a disease, and should be studied and treated as such. He affirmed that it was a physiological and not a moral condition. This was not a new idea, but had been mentioned in a very early age of the world, and had been repeated from time to time all along down the ages. Forty years later the same views of Dr. Rush were repeated and urged in some detail, bringing out many angry responses from clergymen and temperance advocates. In Europe this theory was taken up and made the subject of several papers which have become historical. The idea was repelled by the moralists as a cunning excuse to cover up the wickedness of inebriates and as contrary to the teachings of the Bible.

Nothing but discussions followed until 1852, when Dr. J. Edward Turner projected the first asylum for the medical care and treatment of inebriates, which was subsequently located at Binghamton, N. Y. Ten years after a large, beautiful building was erected, and patients received. In 1859 a similar asylum was begun in Boston, which is now the famous Washingtonian Home. The asylum at Binghamton early fell into the hands of incompetent and dishonest managers, and became a center of political intrigue. Both the income from patients and State aid were large, and, after a checkered career of fifteen years, it was

turned into an insane asylum. The legality of this is to be tested in the courts, with a good prospect of restoring the building to its original design or purpose. During the fifteen years as an inebriate asylum about 7,000 patients were under treatment, and from the study of over 2,000 cases, five years after the period of treatment in the asylum, 62 per cent. were found to be temperate and sober. When the difficulties of this work are considered, with the extreme chronic stages of the persons coming under treatment, and the inexperience of its managers, this result is a most significant promise for the future. Psychologically it very clearly repeated the history of every new advance of science. First, in the extravagant enthusiasm and expectation which attached almost miraculous power to the asylum and its appliances; second, when the truth dawned on the minds of these enthusiasts that inebriety as a disease could only be cured by long and exact processes of physical means accurately adjusted to the special needs of the patient, a reaction set in, and a great army of skeptics and doubters sprang up. This class, who are ever seeking the mysterious, have organized asylums in different parts of the country, which, while acknowledging the needs of restraint, deny the notion of disease, and urge that faith and conversion are sufficient for all cases. Three or four of these asylums have attained respectable proportions in size of building and number of inmates. Several asylums were organized in the interests of politics and rings that, after a few years, were abandoned as failures. Others have been founded on broader principles, where the physical nature of inebriety has been recognized, and means and remedies sought to meet this want, and, although opposed very sharply on all sides, have gone on quietly building up and demonstrating these facts. There are over thirty asylums for the treatment of inebriates in America; some of them are small and empirical in their theories, and many of them are broadly scientific in plans and appliances. All of them suffer from want of legal aid to restrain fully such cases; also, from innumerable obstacles and want of knowledge of those cases, and the best means of treatment and aid to carry it out practically. Also, the fact that a vast majority of such cases are chronic, and more or less incurable before they come for treatment.

Everywhere these asylums are building up public sentiment in the direction of physical means and methods of treatment. Although the question of moral means and the vice of inebriety are still discussed, yet a conviction is rapidly growing that many of these cases of inebriety are diseased, and require actual restraint in asylums. Radical temperance societies urge this view in many cases. This is seen in the coffee-rooms and temperance eating-houses under the care of societies, where rooms are provided, and temporary shelter for those who, with out homes, sign the pledge and make an effort to reform—a clear recognition of the value of positive physical means in the treatment of these cases. Without doubt the evils of inebriety are more generally recognized in America, and in many ways more money and efforts are made to remove and remedy this evil than elsewhere.

To the careful observer, through all this confusion of theory and effort, there are unmistakable signs of a new era, and a wider and more thoroughly-practical knowledge of the means and remedies that will cure this disorder. The first effort to group and study the facts as they appeared from a scientific inquiry began in 1870, in the organization of the "American Association for the Study and Cure of Inebriates." This association is made up of physicians who are connected with inebriate asylums and others interested, and is based on the general principle that inebriety is a disease, and is curable as other diseases are. To this end asylums are essential, or special and particular quarantine stations, where the victim can be housed and given exact physical care until the causes are removed, and the patient built up into a more healthy condition of living.

This association has continually urged that inebriety should come under medical care in special hospitals, and that the victim should be held responsible —like the small-pox patient—to use every means for recovering; that the State should see that he is isolated and properly treated for this malady; that the best methods of treatment can be found in work-house hospitals, where occupation, combined with the best scientific and sanitary surroundings, shall make recovery a matter of much centainty. The opposition urge that this theory is dangerous to the inebriate, and encourages a reckless disregard of his personal obligations; also, that asylums are of only limited value for the first few days, or until the spirits are out of the patient; then the pledge and power of faith can do more than all other means. This view of inebriety is urged only by those who are practically unfamiliar with the natural history of the inebriate, and does not grow among thoughtful students. To the "Association for the Study and Cure of Inebriates" is due, very largely, the growth of the scientific inquiry. Its transactions and journal have been going out regularly to all parts of the world, and its papers (many of them by the most distinguished physicians) have exercised a very wide influence in forming correct sentiment concerning the inebriate and his malady. One of the results is seen in the number of asylums being built in different parts of the country. In several States appropriations have been made, and State institutions have been projected. Many private corporations have buildings in course of completion, or in active operation, receiving patients. It is apparent that public sentiment is rapidly turning to the physical side of inebriety, and the theories which prevailed as to its nature and treatment are challenged and questioned before acceptance. The time has come to demand the facts above all theory, and to insist that inebriety be studied and treated as a physical state, not a spiritual nonentity. A feeling of alarm pervades public sentiment; the calamities following and associated with inebriety seem to peril all progress and civilization, and the inquiry, What can be done? is heard from all sides. The conflict and confusion of fact and theory, now gathered about this subject, is the sure promise of the speedy dawn of a scientific study and exact knowledge of the nature, causes, and treatment of inebriety. As a summary of the above, the following will serve to bring out the facts more clearly:

1. Inebriety in America is one of the greatest sources of peril to civilization and progress. It is very pronounced as a disease, and can be often traced in waves and currents, where the causes are unknown.

2. All efforts to remedy inebriety by moral means have failed; although applied with great fidelity and enthusiasm and ample means, yet inebriety has notably increased. The present labors of both men and societies along the moral side of this subject are evidently nothing but agitations, whose real value is simply to call attention to the evil.

3. Inebriety, when studied from the side of science, even in the most superficial way, appears as a great

physical disorder following a line of law that may be seen and understood, the practical application of which promises the most satisfactory results.

4. Inebriate asylums, as stations where the inebriate can be housed and studied, are necessary means for the cure and restoration of the inebriate, along the line of natural laws; and their practical value is assured beyond all controversy and doubt.

5. Inebriety in America, as elsewhere, must be studied above all theories and dogmas before it can be known or understood. The inebriate is no exception to the vast armies of defective or degenerate, who appear everywhere as the result of violated law and physical conditions of life and surroundings.

MODERN PHARMACY CAN SATISFY THE REQUIREMENTS OF MODERN THERAPEUTICS.

By PURNELL F. SAPPINGTON, M.D.

IT is not the writer's intention to criticise the excellent article by Prof. Woodbury, but simply to reply to some of the ideas he has mentioned.

Every workman should know how to handle tools, and to be able to distinguish good from bad. This, unfortunately, is not the case, if physicians are the workmen, and drugs the tools; for few, indeed, could tell what would be the result of morphine and tr. iron in combination. Good tools can be obtained at the drug stores; but can the doctor distinguish good from bad? Patent medicines undoubtedly detract from the scientific standing of the apothecary, yet a still greater detraction is the prescription calling for A, B, or C's preparation, all of which have a printed formula on the label, and give the dose which the physician is instructed to prescribe. Are these remedies ever analyzed by the men who prescribe them? Would it not be better if the physician's idea of the materia medica were large enough for him to depend on his knowledge to write his own prescriptions and send them to a capable druggist? Are not these physicians often disappointed when they order any of the printed formula articles? And when the effect is not produced, do they attribute it to the fault of the compound, and cease to prescribe it, or do they think they have erred in their diagnosis and prescribe another? This should be taken into consideration when they prescribe a legitimate prescription which fails to do the work for which it was prescribed, and all the blame should not be attached to the druggist. Surely, the druggist is as worthy of consideration as the compounder of the advertised articles. A physician has as much right to specify the druggist to whom the prescription is to be taken, as he has to prescribe A, B, or C's preparation. Does he not reflect on the capability of the druggist by prescribing any of these?

The idea that physicians have no interest in the Pharmacopœia is the result of just such prescribing, as the formula-printing manufacturers can compound labels to suit the taste of the great number of physicians, who accept on faith the circular which claims for the remedies curative powers for all the ailments which affect the human race. The keynote of scientific pharmacy is undoubtedly the standardization of articles to be dispensed, and if laws were stringently enforced on those druggists who dispense articles not standard, it would indeed be a great desideratum.

Who is to be held responsible when a pepsin is to be dispensed—the doctor, druggist, or the stomach of the pig which refuses to give it up? Pepsin has never been isolated, and yet how many thousand times is it prescribed in a day. If a druggist knew that a physician would know just how his prescription should look when finished, he would not dare compound it incorrectly; but when such prescriptions as the following are brought to his shop, signed by leading physicians, what else can he think but that the rudiments of chemistry are unknown to their authors?

℞.—Pepsin purè (Fairchild's) . . . . . ℥ij
Syr. simplicis . . . . . ℥ij
M.—Sig.—℥ss every four hours.
[Signed] ——— ———

℞.—Ol. morrhuæ . . . . . ℥ij
Syr. ferri iod. . . . . ℥ij
Syr. prun. Virg. . . . . ℥j
Muc. acaciæ . . . . . q. s. ℥iv
M.—Ft. sol. Sig.—℥ij every four hours.
[Signed] ——— ———

What is he to say when the woman returns with the first, and says it smells so bad that the baby, young as it is, cries when the cork is removed? and what must he think of both of them?

The remedy is to have a compulsory course of practical pharmacy in the medical schools; then, and then only, will prescriptions and medicines be all the most exacting can ask.

Govanstown, Balto. Co., Md.

The Polyclinic.

PHILADELPHIA HOSPITAL.

W. E. Hughes, M.D.

PLEURISY.[1]

I WANT to ask your attention to a post-mortem examination that was held on a patient who died of pleurisy, in which there was marked effusion. The man's history was negative and he was always healthy, but not robust. He came to the hospital on January 12, 1890, and the physical signs on examination were those of an effusion in the right pleura. His temperature was decidedly above normal, but soon after fell to normal, as is the rule in such cases. After a few days he was aspirated, and forty-eight ounces of clear serum taken from the chest. This had no perceptible effect on the temperature. In the course of a few days the effusion began to accumulate and the temperature began to fluctuate, with a tendency to be higher than it was. He began to lose flesh, and coughed a great deal. He was aspirated again and clear serum was obtained. Both of these aspirations were done on account of dyspnœa. Following this his side and right side of the face became œdematous; he perspired freely, and developed a hectic appearance. Under thorough antiseptic precautions he was tapped again, with the hope of finding pus. A thick, viscid pus, with some bubbles of air in it, was found. The air could not be accounted for by any leakage in the pipe of the aspirator. Forty-eight hours afterward he developed a distinct pneumothorax. Marked tympany on percussion; amphoric resonance on coughing; bell-like sound and a succussion splash. One hundred ounces of stringy pus was taken out later. Before this last tapping there had been a marked communication between the bronchi and chest cavity. In the second right interspace there appeared a subcutaneous em-

[1] Reported by W. B. Stewart, M.D.

physema a few days after the pus had been withdrawn. He died a few days later and a post-mortem was held.

The right lung was found collapsed and bound down to the chest wall by bands of lymph. It contained no tubercles that could be detected. It is the ordinary lung found after a long continued immersion in fluid in the pleural sac. Thus, you see, there is a danger in allowing the fluid to remain too long. At the seat of the subcutaneous swelling was found an abscess cavity filled with pus and air, and was just about ready to emerge through the skin and establish a communication between the pleural cavity and the air. There was a little button-hole cavity between the fibers of the intercostal muscles. From the fact that he had been in the habit of taking cold easily; from the pleuritic effusion on the right side and the dry pleurisy on the left; from the fact that there was such a tendency for the fluid to reaccumulate after tapping, I was led to think there might be a tubercular infection, and I was confirmed by finding the left lung studded with small tubercles. Occurring as it did in a person with a tubercular tendency, and on both sides, gave the suspicion that it was tubercular pleurisy. As to the purulent effusion, I think that the tapping and the tubercles had nothing to do with it. Here I think there was an unfortunate accident that was not due to the treatment. In the first place, there was a perforation of the lung, and this is one of nature's attempts at a cure. The other attempt of nature has been the perforation through the chest wall in the second interspace, near the sternum, on the right side. A perforation here would not do him any good, for it is too high up to permit of drainage. About the fifth interspace, close to the sternum, is the most common point of perforation. If we resort to the same measure by artificial means we can aid nature. This man's condition was such that it did not warrant this procedure of putting in the tube to give free drainage.

PERNICIOUS ANÆMIA.

The next patient is an old woman, aged seventy-five years. Her mother died of phthisis. She has always enjoyed good health until five months ago. During the past five months she has suffered from diarrhœa, and feels wretched and miserable; has no appetite, and is troubled with paralysis agitans. She is distinctly anæmic, and she has developed this muddy, earthy appearance. Some time ago she had a peculiar lemon hue. Looking at her lips you can see the anæmic pallor. Her tongue is coated. Anæmia is a symptom of almost any chronic disease, and, when we find a patient with distinct anæmia, we believe there is some cause. In this woman's case all her organs have been examined and no abnormality nor morbid growth could be detected. The diarrhœa was not sufficient to account for the anæmia, but is rather a consequence of it. When you have a case of anæmia as intense as in this woman's case, you should examine the blood. Such was done here, and the red cells were found to be 902,000, in place of 5,000,000. The red are less than one-fifth of what they should be. Hæmaglobin is 20 per cent. of normal. The corpuscles are slightly irregular, and a few microcytes, larger than normal, are present. There is no considerable poicolocytosis.

We have in this case an anæmia without an apparent cause, which was attended originally with little waste of tissue, so that, with all these elements enumerated, I think we are justified in giving a diagnosis of pernicious anæmia. There is a class of anæmias that are not due to any demonstrable cause, unless it is due to the blood-making apparatus. We have leucæmia, hydræmia, pernicious anæmia, chlorosis, and Addison's disease, all connected with the blood-making apparatus. In this case we have an essential anæmia and not leucæmia or chlorosis, that do not occur at the age of seventy-five years. There is no bronzing of Addison's disease; no enlarged glands from Hodgkin's disease. You must also distinguish and diagnose all cardiac diseases that will often cause trouble of this kind. A distinct functional murmur is heard at the base of this woman's heart—soft, and not transmitted. There has been no nose bleed or hemorrhages. In some of the cases a distinct change of marrow in the long bones is found; but this is not at all constant. There are some cases of pernicious anæmia where there has been almost complete atrophy of the secretory elements of the stomach. I think there is something of this kind in this case, manifested by the impaired digestive power and diarrhœa. The prognosis here is bad, but there is still some hope of recovery.

In this same connection, I wish to show you another woman who presents a similar condition of affairs. A few weeks ago she was a good picture of marked anæmia, and still is more or less anæmic. She is forty-nine years old and has passed her climacteric. Sixteen weeks ago she was in good health but was seized with an attack of pneumonia on the right side, associated with jaundice. She recovered but never regained her strength; got weak; had pains over her body; appetite poor; extreme palpatation, and could not sit up. Examination of the blood showed 1 800,000 red cells; hæmaglobin 45 per cent.; white cells not increased; blood cells normal in shape. I present this case to show you what can be done towards a cure. She was given arsenic, which was gradually increased so that she took fifteen drops of Fowler's solution three times a day. Her color has become better and the symptoms have been ameliorated, and, instead of lying in bed, she is now able to go about the wards and do a little work. This is one of the curious things about pernicious anæmia, for you can produce good results in three fourths of the cases by the use of arsenic. It is not necessary to use it in particulary large doses, but in this case I have run the dose up. I have obtained excellent results from five drops of Fowler's solution three times a day, and it is *the one remedy*. I recall a case of five years ago, in which the corpuscles were only 500,000 in number, and in one week's treatment with arsenic the corpuscular value was normal.

In addition to this, take care about the diet. Oftentimes a change of residence from a malarial neighborhood, will do much toward a cure. If digestion is weak, as it usually is, give light assimilable food, and if necessary, resort to rectal al mentation. Rubbing into the skin hot cod-liver oil, or sweet oil is valuable. As to other medicines than arsenic, little good is to be obtained, unless you want to meet other conditions. Iron has little effect on pernicious anæmia, but its use is valuable as a point in making a diagnosis. In chlorosis you must give the patient as much iron as can be borne.

Are the results obtained in the treatment of pernicious anæmia permanent? I think that all the cases I have been able to follow up have relapsed, and it is necessary to gain the full confidence of the patients and keep them under treatment with the hope of an ultimate recovery. The first change in the blood, as a rule, is an increase in the number of corpuscles, and not an increase in the hæmoglobin.

The Times and Register

A Weekly Journal of Medicine and Surgery.

New York and Philadelphia, Aug. 16, 1890.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

THE TIMES AND REGISTER,
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OREXIN.

BETWEEN the interested encomiums of the proprietor and detractions of his rivals, the fortunes of newly introduced remedies are somewhat precarious Men have learned to doubt the exaggerations of the former, and, as the conscientious practitioner dislikes to experiment with uncertain agents when he has already remedies with which he is familiar, the chances of success are rather against the newcomer. Nevertheless, it is well worth our while to keep an attentive watch upon these novelties, and, whenever the circumstances warrant, give them a fair trial by applying the test of clinical experience.

Orexin appears to be one of the substances which deserve such a trial. Merck and his friends introduced it as the ideal appetizer; a drug which has the specific property of increasing the appetite, regardless of the pathological condition underlying the anorexia. There is room for such a remedial agent, though it would doubtless be greatly abused. In the chronic pulmonary diseases, the lack of appetite is one of the greatest obstacles to treatment; especially as it is acknowledged that our best therapeutic measure is increasing the nutrition. So much is this so that Cohen considers forced feeding essential. On the other hand, another observer, after an apparently impartial trial, finds the drug of so little value that the *Therapeutic Gazette* concludes we need not consider it further. There are some, however, who knowing the very high estimate Dr. Wood sets upon his own investigations, and the very low one upon those of the rest of the world, do not care to accept this dictum as final.

Ranking ourselves among these, we sent to Merck's New York house and procured a bottle of fifty tablets, each containing one and one-half grains of orexin, which were given with the following results:

The first case was one of anorexia from chronic alcoholism, heat, and ice-water. The woman has some cirrhosis, no ascites, but pain in the left hypochondrium. She was directed to take one tablet every morning at 10.30, followed by a cup of hot water. Nothing was said about the expected effect, or the reasons for giving the medicine. Three days later, when asked what results followed, she attempted to describe some vague sensations, evidently quite at a loss as to what was expected. After some further conversation the question of appetite was brought in casually, when she remarked that there was no trouble about her appetite, as she ate five meals a day, and was even then not satisfied.

The next case was that of a teacher, anemic, nauseated, and enfeebled by long exposure to air contaminated by sewer gas. She reported slight improvement in appetite for some days, when an attack of diarrhœa supervened, for which she blamed the orexin, but which was probably due to the heat and unwholesome food. If the orexin did any good in this case, it was very little; in fact, there was no benefit beyond what could be attributed to rest and quiet.

The third case was a curious one of chlorosis, with gradual darkening of the skin, which has been progressing for eight or ten years, with no other cause assignable than a questionable malarial infection. She took one tablet daily for a week, with no perceptible benefit.

The fourth case was that of a gentleman, sixty-eight years of age; plethoric; a steady whisky drinker; with chronic cystitis and its gastric concomitants. He took the tablets under the impression that they were intended to cause sleep. After three days he reported his appetite as "fairly good; about as usual." This, with him, meant that it was as good as when at his best.

Up to this time the orexin had been given only in the very small dose of one and one-half grains. Had the experiment stopped here the impression would have been rather unfavorable, as but one case was manifestly benefited, and three not materially improved. The dose was then increased to two and three tablets, containing three and four-and-one-half grains. In the case of the old gentleman, the enlarged dose produced somewhat more appetite. Although much adverse to medicine, preferring to consider whisky a panacea, he requested a continuation of the tablets—an unprecedented incident in his history.

In the second case there was a little more evidence of benefit when three grains were given.

The third case reported some improvement; but as she now knew what the tablets were given for, her testimony is not wholly reliable.

Finally, the orexin was given to another lady—a case of pulmonary fibrosis, of long duration, who has been confined to her bed for over a year. She is very sensitive to the action of drugs, and not at all imaginative as to their beneficial effects. She took two tablets for three days, and reported that during that period her appetite was ravenous, but her head ached constantly and severely.

These were not selected cases, but simply those which came under observation at the time in which the anorexia was marked and its relief a leading indication. But fifty tablets were used in all. The experiments are, of course, too few to settle the question as to the value of orexin; but they are sufficient

to indicate that the assumption of its uselessness on the testimony of a single witness is not to be accepted as final. The doses given in Germany were possibly too large; or the cases may have been those in which the anorexia depended upon a cause which should have demanded first treatment. At any rate, we should have the testimony of a number, using the drug in varied doses and modes of administration, before we "drop its further consideration."

—W. F. WAUGH.

Annotations.

IF all cities were as wise as Egg Harbor, there would be a demand for doctors to fill the office of mayor For fifteen years the black rot has devastated the vineyards of Egg Harbor, and all efforts at remedying the disease have failed. This summer, however, the mayor, Dr. T. H. Boysen, has succeeded in saving his vines, which are now loaded with fruit. He employed the "Bordeaux mixture," which had previously been used without success. Believing that the failure was due to the faulty method of application, Dr. Boysen concluded to give the remedy a more thorough trial. He employed an atomizer, and sprayed the mixture over the vines before they sprouted. This was repeated just after blossoming, and three times since. The cost is slight. Hundreds of grape-growers have visited Dr. Boysen's vineyards, to witness the results of his method.

DR. ALICE BENNETT has found it necessary to complain to the trustees of the Norristown Hospital, of the poor quality of the flour supplied to that institution. This is hardly in accordance with the views upon hospital management held by the authorities of that institution, who advocate the restriction of the physicians to purely medical treatment. We have always claimed that such a limitation is inconsistent with the best interests of the patients, and Dr. Bennett's action fairly demonstrates the correctness of our position. If the bread is bad, it is the physician's duty to call attention to it; and she should have the power of enforcing a prompt change for the better. Now, it must go to the trustees, who order an investigation, and perhaps some time the matter will be remedied, if the trustees do not forget it.

THERE is a general impression that the people of Australia are a pretty active race, judging by the performances of their oarsmen and cricketers. But the virtue of fastness is not to be credited to the entire community, judging from the hospital intelligence of the last *Australian Medical Journal*. An offer of five thousand dollars was made by a friend, for the purpose of building an operating theatre; but so long a time elapsed before the authorities concluded to accept the gift, that the donor withdrew his offer.

Eighteen of the night nurses complained of their superior, who was notified of the illness of a nurse, but did nothing to relieve her. She was compelled to go on duty while still distressed with pain, and died.

VOMITING of pregnancy must be a remarkable disease, judging from the numerous remedies which have been advocated for it; none of which will relieve it. In the *Australian Medical Journal*, Carney mentions a case, for which he applied a saturated solution of cocaine to the whole of the vaginal wall, the cervix, and the cervical canal, and a suppository containing a grain of cocaine and a quarter-grain of morphine was placed against the os uteri. The patient did not vomit for eight hours; when another application was made, and recovery ensued.

The large quantity of cocaine employed in this case is not safe, as alarming symptoms have followed when much less was used. Such a thorough application of an antiseptic, such as iodine, permanganate, or creolin, would, we believe, produce quite as satisfactory a result. The theory which attributes vomiting of pregnancy to the absorption of ptomaines from the cervico-vaginal canal is one which is deserving of a full trial in practice.

THE first execution by electricity has at last been accomplished. Judging from the reports of eye-witnesses, it was not wholly successful, as a second application was required before motion ceased. There seems to be no reasonable doubt that consciousness was extinguished by the first shock, and that death was wholly painless.

The comment of Mr. Edison seems quite apposite, that it was a mistake to put the arrangements into the hands of physicians, who had no experience in electrocution. The electric light companies could have accomplished the object with neatness and despatch.

Even as it is, this method is preferable to hanging; and, with a little more experience, electricity will yet be found the best agent for execution; destroying the fated victim with the sudden and painless lightning stroke.

Letters to the Editor.

RESTORATION OF THE NOSE AFTER IT HAD BEEN ENTIRELY DETACHED FOR AN HOUR.

ON July 1, I was called to the Kincaid Cotton Mills, Griffin, Ga., and, upon my arrival, I found a young man bleeding from the nasal locality. After examination, I discovered that all the soft part of his nose was gone, except about one-third of the left wing and a thin anterior flap of the nasal septum, which was lying down upon the upper lip, still attached at its lower end. I was informed that it was cut off by a belt which had slipped off of its pulley while the machinery was in motion.

I ordered the missing member brought to me; after a short search it was found. I washed it and warmed it thoroughly in warm water lightly impregnated with bichloride of mercury; placed it in its proper position; raised the anterior flap, and stitched all around with surgeon's silk. I then introduced into each nostril two large drainage tubes, compressed and confined the parts firmly with several strips of isinglass plaster.

Over the entire nose I placed a piece of oiled silk. During the first twelve hours I kept up continual warmth by laying across the nose a flannel doubled three or four times, saturated with a warm solution of bichloride mercury. I also injected frequently this warm solution into the nostrils.

On the second day nothing was done except to keep a dry flannel across the nose. On the third day I removed the drainage-tubes, washed out each nostril with warm bichloride solution, dried the parts, and

placed the tubes back as before. I repeated this almost daily until the tenth day, when I removed all of the dressing and found the nose alive and united except a small triangular notch in the right wing, which was so badly bruised as to cause it to die. The time the nose remained off was about one hour, which fact renders this case a very important one to the medical profession. I attribute my success to absolute cleanliness and uniform warmth during the first few hours.

In a few days I will restore the slight deformity by paring and bringing the edges together.

J. M. KELLEY, M.D.

GRIFFIN, GA.

Book Reviews.

RAILWAY SURGERY. A practical work on the Special Department of Railway Surgery; for railway surgeons and practitioners in the general practice of surgery. By C. B. STEMEN, A.M., M.D., LL.D. With numerous illustrations; 1890, J. H. Chambers & Co., publishers, St. Louis, Mo.

This book is the outcome of the author's belief that railway surgery has grown so important that it deserves special practitioners, special journals and special text-books. It is claimed that over 25,000 American surgeons are engaged in this special work; while but little reference is made to it in the college course or in ordinary works on surgery. The correctness of these assumptions each of our readers must decide for himself. If he needs a special work on railway surgery, he will find Dr. Stemen's book of much practical value. He treats of the transportation of injured men, temporary treatment, shock, anesthetics, lacerated wounds, fractures, amputations, hemorrhage, excisions, cerebral concussion and compression, burns, color blindness, injuries to the hand and feet, spinal concussion, transfusion, aneurism and the care of the sick or injured on foreign railroads.

In spite of the author's claims, there is little which is not to be found in the systematic works on surgery. The illustrations are mostly old friends, from the instrument makers; while of the four that illustrate the results of operation, that on page 156 is remarkable in that it presents a view of the sound shoulder, while the one that was operated upon is turned away so that only a glimpse of the margin of the wound is given. The prescriptions are dreadful; a mixture of Latin and English, nominatives and genitives, some adjectives capitalized and others not, punctuated or not, spelling variable. Glycerine, on page 29, becomes glycerin on page 93. Putrifaction, locunated, perafine and vasaline, ought not to have escaped the eye of the proof-reader.

The material taken from Dr. Stemen's practice and that of his colleagues in the National Association of Railway Surgeons, forms the most valuable part of the book, and might with advantage have been largely increased. The subject of railway surgery is capable of much better handling, and as this is the pioneer work on the specialty, we may expect to see a great improvement in Dr. Stemen's subsequent editions.

The bookmaker's part, typography, paper and binding, is so well done as to merit special mention.

Pamphlets.

What is the Present Medico-Legal Status of the Abdominal Surgeon? By William Warren Potter, M.D., Buffalo, N. Y. Reprinted from the *American Journal of Obstetrics and Diseases of Women and Children.*

Twelfth Annual Report of the State Board of Health of the State of Rhode Island, for 1889. Including the report upon the registration of Births, Marriages and Deaths in 1888. Providence: E. L. Freeman & Son, State Printers, 1890.

The Pennsylvania Museum and School of Industrial Art. Circular of the Committee on Instruction, 1890–91. Classrooms: 1336 Spring Garden Street, Philadelphia, 1890.

Cholecystotomy. By Edward Ricketts, M.D., of Cincinnati, O. From *The Pittsburgh Medical Review*, May, 1890.

External Surgery of the Nose. By B. Merrill Ricketts, Ph.B., M.D. Reprinted from *The Journal of the American Medical Association*, June 21, 1890.

Five Cases of Vaginal Hystorectomy for Malignant Disease of the Uterus, all Recovered. By W. F. McNutt, M.D., L.R.C.P., Ed., etc. Reprinted from Transactions of the Medical Society, State of California, 1890.

The Use and Abuse of Soap and Water. By B. Merrill Ricketts, M.D. Reprinted from the *Journal of Cutaneous and Genito-Urinary Diseases.*

A New Operation for Prolapsus of the Anterior Vaginal Wall. By Andrew F. Currier, M.D., New York. Reprinted from *Annals of Gynæcology and Pædiatry.*

The Medical Digest.

PYOCTANIN has been used by Kanne (*Weekly Med. Review*) in a case of acute gonorrhœa, which was cured in three days by three injections of a 1 to 1,000 solution.

THOMPSON, in the *Journal of the National Association of Railway Surgeons*, attributes acquired color-blindness to the abuse of alcohol and tobacco. He says that the scotoma in tobacco and alcohol amblyopia often includes the fovea centralis, which makes the color-blindness central and extremely dangerous.

DIPHTHERIA OF THE MEATUS URINARIUS.—A case is reported by Brown, in the *Journal of Cutaneous and Genito Urinary Diseases.* The source of inoculation was probably a piece of cotton, placed upon the meatus after circumcision. In thirty-six hours a considerable wax-like mass developed, consisting wholly of bacteria. No disease appeared in the circumcision wound. Albuminuria was found present, and subsided with the convalescence.

CASCARA SAGRADA.—In the *Atlanta Med. and Surg. Journal*, Murphey gives the following formulas for using cascara, as a laxative:

℞.—Ext. cascaræ sag. fl..... ℥j.
Glycerini..... ℥ss.
Syr. tolutanæ..... ℥ss.
Aquæ..... q.s. ad ℥iv.
M.—S. Teaspoonful twice daily, before meals, soon reduced.

℞.—Ext. cascaræ sag. fl..... ℥ss.
Tinct. nucis vom..... ℥iij.
Tinct. rhus tox..... gtt. xv.
Syr. tolutanæ..... ℥j.
Aquæ..... q.s. ad ℥iv.
M.—S. ℥j. in water before meals, for constipation and indigestion.

TETANUS WITH RECOVERY.—Tetanus is a disease sufficiently formidable to make the therapeutics of a successful case one of interest to the profession. A glance at the books shows, by the long list of remedies recommended, how uncertain all of them are in a given case.

V., aged thirty, had his wrist torn and lacerated by a large jagged sliver; wound healed nicely. By the fourth day there was pain and stiffness in both arms, which gradually extended to the body generally.

As soon as the nature of the case was recognized he was put upon chloral gr. xv, with potas. brom. gr. xxx, every two hours. After a week gr. $\frac{1}{8}$ of morphine was added to each dose, with undoubted benefit. This treatment was continued for a month before its abatement would not be followed by aggravation of symptoms. Recovery was slow, but satisfactory. No attention was paid to an abundant eruption due to the bromide.—Pratt, *Pacific Med. Journal.*

Albuminuria of Pregnancy.—Griggs (*Southern Med. Record*) recommends the internal administration of chloroform for these cases. The symptoms that indicate the need of testing the urine are: The swollen sensation of the hands and face; the rings tight; general puffiness; pain over the crown of the head; perverted vision; altered speech; diminution of urine. If there are six to eight weeks before the expected parturition, he begins with twelve drops of chloroform, increasing to twenty. If nearer the term, the dose should be larger. The doses are to be taken before meals, thrice daily, and at midnight; in an ounce of water. If the albumin increases, the dose must be larger. The drug is to be continued as long as the albumin does.

Gleet.—Allen (*Boston Med. and Surg. Journal*) thinks the best method of treating gleet is by making local applications to the diseased surface through the endoscope. He prefers nitrate of silver, beginning with a 1 per cent. solution and gradually increasing to 10 per cent., applied every four to seven days. In the interval, ordinary astringent injections may be used, or corrosive sublimate irrigation, 1 to 1,000 or 2,000, the sound passed, etc., if thought advisable.

Stricture with glandular disease is tedious, but generally ends well.

Simple inflammations require about a dozen sittings.

In treating the posterior urethra, Keyes' method of deep injections is advocated. Good results are obtained from irrigating the neck of the bladder with permanganate solutions. This has none of the risks of silver. Some of the solution should be left in the bladder. For this operation, Ultzmann's syringe-catheter is useful.

Prescriptions from the Nervous Department of the Vanderbilt Clinic:

Brown Séquard Mixture:

℞.—Potass. iodid..... gr. vj.
Potass. bromid.,
Ammon. bromid .... āā gr. xv.
Sodii bicard..... gr. iv.
Tinct. nucis vomicæ..... ♏vj.
Tinct. gentianæ comp..... ♏vij.
Aquæ. .....q.s. ad ℥j.
M.—S. Dose, ℥j.

Headache Mixture:

℞.—Ammonii chloride ..... gr. jss.
Morphinæ acetat..... gr. $\frac{1}{4}$.
Caffeinæ citrat.. ..... gr. $\frac{1}{20}$.
Sp. ammoniæ arom..... ♏$\frac{1}{2}$.
Aq. menthæ pip..... ℥ss.
Elix. guaranæ.....q.s. ad. ℥j.
M —S. Dose, ℥j.

Delirium Tremens Mixture:

℞.—Potass. bromid.,
Sodii bromid. .....āā gr. xv.
Chloral. hydrat. ..... gr. x.
Tinct. zingiberis..... ♏x.
Tinct. capsici. ..... ♏v.
Sp. ammonii arom..... ℥j.
Aquæ..... .q.s. ad ℥ij.
M.—S. Dose, ℥ij.

Epileptic Mixture:

℞.—Potass. bromide.,
Sodii bromid.....āā gr. x.
Ammonii bromid. ..... gr. v.
Sodii bicarb. ..... gr. ij.
Liq. potassii arsenit..... ♏i.
Aquæ.....ad ℥j.
M.—S. Dose, ℥j.

Compound Epileptic Mixture:

℞.—Tinct. belladonnæ..... ♏ij.
Potass. bromid..... gr. xv.
Chloral hydrat..... .... gr. v.
Aquæ ..... .q.s. ad ℥j.
M.—S. Dose, ℥j.

Neuralgic Tablets:

℞.—Quininæ sulphat. .. .. gr. $\frac{1}{2}$.
Morphinæ sulphat. .... gr. $\frac{1}{16}$.
Strychninæ sulphat..... gr. $\frac{1}{120}$.
Acid. arseniosi..... gr. $\frac{1}{80}$.
Ext. aconiti..... gr. $\frac{1}{8}$.
M.—S. One tablet, repeated every hour.

Sciatic Tablets:

℞.—Tinct. colchici,
Tinct. cimicifugæ,
Tinct. aconiti,
Tinct. belladonnæ.....āā ♏$\frac{3}{4}$.
M.—S. One tablet.

—From Starr, on *Nervous Diseases.*

FRENCH NOTES.

By A. E. Roussel, M.D.

Treatment of Rachitis (Kassowitz).—

1. (For poor patients):

℞.—Phosphorus..... 0 gr. .04
Cod-liver oil..... 100 grammes
Make emulsion.
One teaspoonful a day (= 0 gr. .0005 of phosphorus).

2. (For rich patients:

℞.—Phosphorus..... 0 gr. .01
Lipanine..... ..... 30 grammes.
Sugar,
Powdered gum arabic.....āā 15 "
Make emulsion.
One teaspoonful in the twenty-four hours.

3.

℞.—Solution of phosphorus in oil of almonds (00–0.2) ..... 5 parts.
Cod-liver oil..... 95 "
Make emulsion.
One teaspoonful a day.

This treatment should be continued for a prolonged time without interruption.—*Le Bulletin Médical.*

Chromic Acid for Sweating of the Feet.—By order of the Minister of War of Prussia, experiments have been made since 1889 with pure chromic acid to relieve sweating of the feet, experiments which have resulted satisfactorily. Often it was only necessary to bandage a single time the entire foot with cotton soaked with a five per cent. solution, so that it was rarely necessary to repeat the treatment or use a stronger solution. The parts treated with the solution of chromic acid become dry and hard, which increases the tendency for long marches in a very considerable manner. If there are any wounds on the feet, it is better not to commence the chromic acid treatment until they are cured. Finally, no secondary affections have been noticed, nor complications due to the suppression of the sweats by the chromic acid.—*Journal des Maladies Cutanées, etc.*

TREATMENT OF HYPERTROPHY OF THE PROSTATE. (Kobner).—

℞.—Iodide of potassium..... 3 grammes.
Bromide of potassium .....2.5 to 3 "
Extract of belladonna..... 30 centigr.
Water..... 200 grammes.

For twenty enemas.

M.—Inject each time 20 grammes of this solution in 50 to 100 grammes of hot water; once a day at first, later twice daily.

Later on we increase the dose, and we prescribe:

℞.—Iodide of potassium ..... 10 grammes.
Bromide of potassium..... 8 "
Extract of belladonna .... 0.60 centigr.
Water..... 300 grammes.

25 grammes of this solution in 80 to 100 grammes of water twice a day.

Kobner found that in adding to each enema five to ten drops of pure tincture of iodine, the mixture was very efficacious, and was tolerated by the large intestine.—*Revue de Therapeutique.*

CHLORIDE OF SODIUM IN FACIAL NEURALGIA.—In doses of one teaspoonful to one tablespoonful chloride of sodium is said to possess the property of cutting short an attack of migrane or other nervous manifestations.

According to Dr. Leslie the same substance will cure facial neuralgia, odontalgia, earache, nervous headache, not by internal use, but as an application to the nasal mucous membrane; taken as snuff, or by means of an insufflator, in the nostril of the painful side.—*Revue Médicale.*

TRANSMISSIBILITY OF TUBERCULOSIS BY MUSICAL INSTRUMENTS.—Dr. Maljean has observed a case of tuberculosis in a musican, which he concluded was due to the use of a trumpet which previously belonged to a phthisical patient. To demonstrate the fact he introduced through the tubes a certain quantity of sterilized water, which he agitated for ten minutes. Two centimeters of the liquid was subsequently injected in a guinea pig. The animal died of tuberculosis.—*Bulletin de Thérapeutique.*

NOTES UPON SOMNAL, THE NEW HYPNOTIC. Frank Woodbury, A.M., M.D. *Dietetic Gazette*, July.—Last fall Radlauer,[1] of Berlin, brought to the notice of the medical profession a new compound to which he gave the name of Somnal, in acknowledgment of the remarkable hypnotic properties which it appeared to possess. It was formed by the union of chloral, alcohol, and urethan, according to the original notice,[2] but is not a simple mixture of these bodies. It differs from chloral-urethan by the addition of $C_2 H_4$, its formula being $C_7 H_{12} Cl_3 O_3 N$. The method of manufacture is by direct combination of chloral alcoholate and urethan in a vacuum apparatus, according to its discoverer, who states[3] that its composition might be graphically represented thus:

$$C\,Cl_3—C(OC_2H_5)(H)—NHCOOC_2H_5$$

Specimens of this new hypnotic having, through the courtesy of Messrs. Eisner and Mendelson Co., been placed in my hands for examination and trial, I will here very briefly communicate some of the results thus far obtained, reserving my final judgment upon the drug until experience has been more extended.

[1] Zeitschrift des Apothekers Vereins, Nov., 1889.
[2] Journal de Médecine, Oct. 20, 1889.
[3] Pharmaceutical Journal and Transactions, Nov., 1889.

Physical Characters.—Somnal is a colorless liquid, resembling chloroform in its appearance and behavior when added to cold water, in which it forms globules and refuses to mix or dissolve. When shaken with water the mixture is milky, but quickly separates. It is soluble in hot water and alcoholic solutions, and dissolves resinous substances and fats. The odor is faint, not very penetrating or disagreeable, and resembles that of the spirits of nitrous ether, or recrystallized chloral The taste is very pungent; and for administration it needs free dilution. It may be given with whisky, or solution of tincture of zingiber, or syrup of licorice. Somnal is inflammable, burning with an alcoholic flame; it does not evaporate quickly, and leaves a greasy stain upon blotting paper. Specific gravity greater than water; reddens litmus paper slightly.

Physiological Effects.—In its action it resembles chloral in quickness of effect and naturalness of the sleep produced. No marked depressing influence was exerted upon the pulse or respiration rate, though it was noticed that the breathing became slower and the pulse slower and fuller, as in natural repose. No disagreeable after-effects. The head was clear and the stomach was unaffected; the patients generally had an appetite for breakfast. No constipating effect. The kidneys acted rather more freely than usual. My colleague, Dr. Ernest Laplace, to whom I gave some of the drug for trial at the Philadelphia Hospital, writes as follows:

"I have given somnal a fair trial upon six patients at the Philadelphia Hospital. In no case were the patients told what was given them, so that outside of the bare possibility of the patients' falling asleep through natural causes, somnolence was brought on by the drug. It was administered in a solution of tinct. zingiberis, in half teaspoonful doses, and was found palatable.

"Administered at 4 P. M., at a moment when patients were not generally asleep. In four cases sleep came on within half an hour, which lasted from five to eight hours; the two other cases showed no effect from the drug. It is their habit to get at least gr. ¼ of morphine sulph. to put them asleep every night, as they are suffering from intractable malignant growth.

"In no case was there any noticeable after-effect.

"I have not formed any opinion upon the length of time that the drug could be used daily upon the same patient.

"To this I might add that no depression of the normal temperature was noticed in any case in my hands, and thus far I have not used it in pyrexia."

Therapeutic Application.—The effects of somnal in producing natural sleep suggest its use in insomnia. The first case in which I used it was in a patient suffering with acute alcoholism, who had been under treatment for a fortnight in an institution, where he had a free supply of liquor, and he came out rather worse than he went in. He was thirty-nine years of age, very tremulous, and could not sleep; or, if he dozed off, would immediately waken up. I gave him, at about 3 P. M., thirty minims of somnal (or rather a drachm of a mixture of equal parts of somnal and whisky), well diluted, and went into an adjoining room to speak to an attendant. Upon my return I was surprised to find him fast asleep, although I had not been away from him more than fifteen minutes. He slept for four hours, and then was able to take something to eat. At 10 o'clock he had another dose, and he slept until 7 next morning, having wakened up once only during the night, and insisted

upon having another dose, and immediately after taking it he fell asleep again. The next night he was given a double dose at 10 o'clock, and he slept all night without wakening. No bad effects were observed. The somnal was given for four nights, when he was so nearly well that it was suspended, as he had had good natural sleep at night, and seemed quite restored. Alcohol was positively prohibited, the only substitute allowed being Elixir of Coca and Camellia (P. D. & Co.), in tablespoonful doses, in which, it is true, there was a small amount of alcohol, which was quite infinitesimal when compared with what he had been using. Somnal, therefore, acts well as a hypnotic in acute alcoholism as a tranquilizer and hypnotic.

In a case of neuralgia of the bowels (visceral neurosis of Allbutt), where the patient had a sleepless night, a dose of twenty minims relieved nausea and pain, and the patient fell asleep.

In syphilitic headache and insomnia, somnal, in moderate doses, failed to produce sleep, which was afterward secured by potass., bromide and iodide, and antipyrine.

In cases of insomnia, fretfulness, and restlessness in young children, somnal with mint-water and syrup offers better results than opiates, and is much safer. The same remark probably applies to the use of somnal in acute pneumonia, but I have not been able to confirm this yet by actual trial.

Without further going into detail, it may be stated in conclusion that somnal acts as a hypnotic, but instead of depressing the system as chloral does, it slightly stimulates the gastric mucous membrane, relieves nausea and pain, improves the appetite, increases secretion (probably), does not cause constipation. The circulation, respiration, and temperature are not notably depressed after its administration. No disagreeable after-effects have been observed. As it is rapidly eliminated from the body, it may be administered each night for a number of days without any obvious ill-effects. It acts very much like chloral, but is more pleasant to take, and not so depressing in its effects upon the nervous system and the circulation.

The Mortality of Widowers from Phthisis.—In a paper, on Tuberculosis in Belgium, MM. Destrée and Gallmaerts come to the conclusion as the result of their investigations that, in comparing the mortality from phthisis of bachelors, married men, and widowers, the last are very much more subject to this disease than either of the other classes. The same statement holds good for all ages, and it is, they say, also true that widows are more liable than single women to die of phthisis. The authors do not think this is to be explained except by direct contagion of wife to husband, or husband to wife. They cannot think irregularities and excesses indulged in by widowers can be answerable for it, for advanced age does not seem to make any difference. They would ascribe it to infection occurring during married life, the disease claiming its second victim some time after the death of the first.—*Lancet.*

Ice in Strangulated Hernia.—A case which, I think, well illustrates the occasional value of ice in strangulated hernia occurred recently in the West Bromwich District Hospital.

T. F——, a laborer, aged thirty-five, came to the hospital on July 15, at 8.30 P.M., and was admitted under the care of Mr. Langley Browne. The history he gave was that while at work that morning, at about 10.30 A.M., he had a sharp pain in the groin, and "felt something slip." He then found that there was a lump in the right groin, and went home and remained in bed. He was sick about five times during the day, and was seen by a medical man in the evening, who ordered him to go at once to the hospital. On admission there was found a rounded swelling, the size of a tangerine orange, occupying the right groin, immediately over the situation of the external abdominal ring, which was tender on pressure, quite devoid of impulse, and irreducible. He immediately vomited on taking anything by the mouth, and had passed no flatus since the accident occurred. The patient was at once placed in a warm bath, and reduction attempted while he was in the bath. This failing, he was put to bed, and the parts were shaved ready for an operation. However, as the symptoms were not very urgent, he was given one grain of opium, and an icebag was applied to the groin. He vomited four times during the night. At 10.30 A.M. on the following morning the taxis was again tried, with the result that the hernia was easily reduced.

—Wilkinson, in *The Lancet.*

Induction of Premature Labor. — In these days, when abdominal section is so freely practiced, obstetricians of authority tend to throw discredit upon the induction of premature labor and craniotomy, and so advocate Cæsarean section. Prof. Ahlfeld, however, has lately issued an important monograph of 118 cases of induction of labor, performed by himself and his assistants between 1871 and 1890, at Leipzig, Giessen, and Marburg. In 111 of these cases labor was induced on account of deformed pelvis; in the remaining 7 it was undertaken because of some general illness. Only one mother appears to have died from the direct results of the proceeding in question; she succumbed to damage of the soft parts caused by the passage of a large head through an atypical pelvis. Four mothers died from diseases which either followed accidentally or were those for which labor had been induced—convulsions, tuberculosis, heart disease; 75 mothers recovered without rise of temperature. One hundred and twenty-one children were thus delivered (there being three cases of twins in the 118 labors). Of these 19 were stillborn, 18 died in the course of the first day, 9 died before the mother was discharged, and 75 left the hospital, etc., alive. Out of 99 carefully registered contracted pelvis cases (including two twin labors) 86 children were born alive, 15 stillborn, and 61 survived. On the other hand, in 6 cases of Cæsarean section performed in Prof. Ahlfeld's wards, 2 mothers and 1 child died. Space forbids any notice of the author's statistics as to the extent of contraction in the pelves. The monograph deserves close study. Prof. Ahlfeld insists that the introduction of a flexible bougie into the uterus without rupture of the membranes is by far the best method, but the pains are apt to be slow, so that accessory means are sometimes required. There can be no doubt that the majority of practical obstetricians are more likely to attain good results by inducing labor than by performing Cæsarean section or Porro's operation.

—*British Medical Journal.*

Disinfection by Sulphur.—The following letter has been forwarded to us. The importance of the subject fully warrants us in publishing it in full:

SAMUEL P. DUFFIELD, M.D.,
Health Officer of the City, Detroit, Mich.

DEAR DOCTOR:—In the Detroit newspapers to-day, in a synopsis of your annual report, I see that you propose to displace disinfection by fumes of burning sulphur. Permit me to ask your attention, and that of the Detroit Board of Health, to some facts which bear on this subject, and which could not be had except through this office:

Excluding Detroit and Grand Rapids (the data from which cannot be profitably included with the data from the smaller places), the official reports to this office prove, beyond a reasonable doubt, that isolation and disinfection do restrict diphtheria. I send herewith three diagrams, in which are condensed the experiences of health officers throughout Michigan in over a thousand outbreaks of diphtheria in the years 1886, '87, and '88. They prove that, in those outbreaks in which isolation and disinfection were *neglected*, there were, on the average, over fourteen cases, with nearly three deaths to an outbreak. They prove that, in those ourbreaks in which isolation and disinfection were *enforced*, there was an average of only a little over two cases, with only about one-sixteenth of one death to each outbreak; and it must be remembered that these figures relate to instances in which at least one case of diphtheria had already occurred in the community, and that occasionally several cases occur at once, on the start.

The method of disinfection referred to is that recommended by this State Board, namely: burning three pounds of sulphur for every thousand cubic feet of air space in a room, infected articles being loosely spread out; and, because of movements of infected articles from the sick room, and from one room to another, all rooms in the house are disinfected, together with all the contents.

The evidence of the complete success of this method throughout the State (except in Detroit, and possibly Grand Rapids) is so conclusive that it seems to me certain that any failure in Detroit must be due to some imperfection in the application of the method of disinfection. I do not claim that Dr. Chapoton's suggestion is correct: that it "was attributable to the carelessness of the disinfecting physician." I think it is quite likely that the failure in Detroit is due to the use of *too little sulphur;* possibly, also, to the use of something else with the sulphur. (Possibly the exact weight of the sulphur may not be correctly estimated when mixed with another substance).

I respectfully submit that a *few* laboratory experiments should not be allowed to prevail against two hundred and fifty successful ones in the experience of health officers in restricting actual outbreaks of diphtheria in Michigan. During the last three years the known saving of life in Michigan from diphtheria, by isolation and disinfection, has averaged one and a half persons per day.

However, there are many laboratory experiments which coincide with the experience of health officers in Michigan. I send you herewith a hektograph copy of an account of experiments by Pasteur and M. Roux, with the co operation of Dujardin Beaumetz, which prove both the points which I desire to make: (1) that the burning of two pounds of sulphur per one thousand cubic feet of air space is *not* always certainly effective, and (2) that three pounds *is* effective. This applies to a closed room; if there are openings through which the fumes may pass more sulphur is required.

Permit me to suggest that if any method of disinfection is adopted, which involves the movement of infected clothing or other articles through the streets to a central disinfecting station, that no such removal be permitted until after such articles have been submitted to disinfection by fumes of burning sulphur, or by chlorine gas, or other equally effective gaseous disinfectant, which shall thoroughly permeate the room and contents.

From my practical experience and observation with such disinfectants, I wish to commend the method by fumes of burning sulphur, *without* the addition of extra moisture to the atmosphere. When such moisture is added many valuable articles are destroyed, which, without such moisture, would not be injuerd.

I trust that this entire subject will receive thorough investigation by your Board, and I shall be glad to be informed of the result. The State Board of Health desires to utilize, for the entire State, all new methods and all new facts which you can supply on this important subject. Very respectfully,

HENRY B. BAKER, *Secretary.*

DISINFECTION BY FUMES OF BURNING SULPHUR.—Experiments by Pasteur and M. Roux, in the Cochin Hospital, of Paris, were carried on under the observation and with the co-operation of Dujardin-Beaumetz, physician to the hospital, and one of the most eminent medical authorities of France. Dujardin-Beaumetz makes a summary report of the experiments, in a work entitled *Les Nouvelles Medications.*[1] A few paragraphs, from pages 76 and 77 of this work, show substantiallv as follows:

"Twenty grammes of sulphur to a cubic meter (1.53 per 1,000 cubic feet of air space) destroys the different micro organisms in a moist state, but it is necessary to increase this dose if one wishes to destroy some organisms in a dry state. In fact, since the last communication to the Academy, M. Bardet and myself, aided by M. Chambou, have continued these experiments upon micro-organisms in a dry state, and particularly upon vaccine virus. We have taken from the pustules of vaccinia, scabs which we have reduced to fine powder, and placed in chambers where were variable quantities of flowers of sulphur. When a dose did not exceed 20 grammes per cubic meter, the vaccine powder did not lose its properties, and one could, by inoculating animals and infants, obtain a vaccine eruption.

"With 30 grammes per cubic meter, (2.297 pounds per 1,000 cubic feet of air space) the results obtained were uncertain, sometimes the powder loses its properties; but when the dose is increased to 40 grammes per cubic meter, (3.06 pounds per 1,000 cubic feet of air-space) the inoculations are always inactive. So then, for vaccine, and probably for variola, if one desires to destroy the contagious "germs" in a dry state, it is necessary to double the dose of 20 grammes, which we have already fixed.

"According to the experiments of Vallin, and of Legouest, 20 grammes are sufficient for typhoid fever, while, according to Vallin, 40 grammes are necessary for the microbe of tuberculosis.

"(In the case of beef tea cultures, the dose must vary according to the micro-organisms experimented with.)

"The results at which we have arrived are absolutely confirmative with those which have been previously obtained by Polli, of Milan; Pettenkofer, of Munich; Dougall, of Glasgow; Fatio, of Geneva; and Pietra Santa, of Paris, and finally of the researches of Vallin, published in his able work upon disinfectants."

[1] Translation for this note has been received from John H. Kellogg, M.D., Battle Creek, Mich.

Medical News and Miscellany.

DENGUE is prevalent in Senegal.

SATURDAY half holidays make the lives of workers easier all the week.

BIDDEFORD, Maine, prosecuted a milkman for selling milk on Sunday.

THREE Manayunk families were poisoned last week by eating fish bought from a huckster.

THE Berks County Medical Society met last week at the residence of Dr. Pursell, at Bristol, Pa.

THE Chinese pay their doctors as long as they remain well; as soon as they get sick their pay stops.

THE Medical Examining Board of Virginia will meet at Rockbridge Alum Springs, Sept. 2, at 8 P.M.

A NEW YORK physician recommends the introduction of the telephone into the infectious disease hospitals.

ELECTRICITY is used for taming refractory prisoners in the Ohio penitentiary, instead of the hose and cold water.

A CHICAGO college student was recently committed to the insane asylum, adjudged insane from cigarette smoking.

THE Antwerp Provincial Council divided its subsidy for treating hydrophobia between Pasteur and St. Hubert!

ALTERATIONS have been begun in the Clinic Ward of the University Hospital, which will add more room to that department.

THE census-taking in New York has developed the fact that more than sixty languages and dialects are spoken in that city.

DRS. W. M. L. COPLIN AND R. P. ROBINS have been elected out-door physicians by the Board of Charities and Correction.

A FAITH-CURE doctress at Omaha treated a woman in confinement recently; the mother and child both died. The curest is under arrest.

SALIPYRIN is a salicylate of antipyrin, patented, but not yet sufficiently through the experimental stage to be given to the profession.

DR. W. F. WESTMORELAND has been elected to the Chair of Surgery in the Atlanta Medical College, left vacant by the death of his father.

DR. HAL. FOSTER, of Kansas City, Mo., has recently received the appointment of Laryngologist to the Missouri Pacific Hospital at that place.

IT is said that local anesthesia can be produced by discharging two or three syphons of aërated water on the part. The anesthesia lasts five minutes.

PHILADELPHIA prohibits the use of the phonograph for fear of infection from the ear pieces; but the public drinking cup still remains at the Park fountains.

EDSON says that thorough sulphur fumigation is effective against small-pox contagion, less so against scarlatina, and untrustworthy against diphtheria.

THE epidemic at Preston, Iowa, proves to be a malignant type of dysentery. Eighteen deaths have occurred in as many days, but the epidemic is said to be abating.

ENGLISH JOKE.—When a woman has twins, one black and the other white, it is evident that the fact of superfœtation has been proved in black and white. Now, all laugh.

MICHIGAN bears up under the infliction of typho-malaria, puerperal fever, enteritis, cholera infantum, and diphtheria, all of which were reported on the increase on July 19th.

THE Norristown Board of Health held a meeting last week to consider Dr. Cresson's report of impurities found in the Schuylkill, which befouled Norristown's water supply.

DR. WILLIAM RUPP, of Myersdale, read a paper upon "The Influence of the Christological Principle," before the Spiritual Conference of Reformed Church clergymen, at Lancaster.

IN April Melbourn reported 1,478 births and 973 deaths, giving to each 1,000 of the population a ratio of 3.22 births and 2.12 deaths; or an annual rate of 38.64 births and 25.44 deaths.

IN Melbourne, Australia, during the first four months of 1890, there were 303 deaths from typhoid fever, and 177 from diphtheria; not including, in the latter, 20 deaths from diphtheritic croup.

PROF. HUXLEY has written to the New York *Times* on Medical Education. He wrote apropos of the meeting of the British Medical Association at Birmingham, and of its President's address.

THE University of Lewisburg has conferred the degree of Master of Arts on Dr. Joseph R. Clausen, a physician of this city. Dr. Clausen is the Sitting Past Supreme President of the Order of Tonti.

A KANSAS editor has recently been granted a pension of seventy-two dollars a month for indigestion. He will soon recover from his indigestion now that he has the means of buying something to digest.

MARION county, Illinois, has gained the credit of having the stingiest man on earth. He tried to buy part of a bottle of patent medicine for his son, who, he claimed, would die before he could consume the entire bottle.

CORONER ASHBRIDGE held an inquest last week upon the body of Edward J. Steward, colored, who died in the insane department of the Philadelphia Hospital, from scalds accidentally received while bathing.

JOINT committees of the Southern and Northern Dental Associations, at Excelsior Springs, Missouri, last week, decided to begin arrangements at once for an International Dental Congress at Chicago during the World's Fair.

IT seems that there is danger in cleanliness in New York. It is reported that children are getting ophthalmia at the Market street public bath, it is believed from using towels which others, affected with the disease, have made use of.

DR. E. N. BUSH stated, in a paper read before the Association of Superintendents, that during eight years' trial of women physicians of insane asylums, there were fewer cures and more deaths in the asylums where the female physicians were employed.

MRS. SCHMIDT, her daughter, and four boarders, of Pittsburg, were made seriously ill on Saturday by drinking coffee in which poison had been placed. A Mrs. Levi, a business rival, who was seen crawling from a window of the Schmidt's house on Friday evening, has been arrested.

UGLINESS as a disqualifying cause seems intelligent in a candidate for matrimony, but is certainly less so when the question is one of fitness for military service. This, however, is one on the list of disqualifications laid down by the head of the Medical Department in a manual just issued on "Conscription in France."

THE Medical Academy for Women in St. Petersburg is to be reopened with a yearly grant of $15,000 from the city, the use of a municipal house, and admission to the city hospitals. This is the result of a favorable report upon the lady doctors' work in the public service by Dr. Archangelsky; and the ladies think he is well named.

AN ingenious burglar, under sentence for five years in the county jail, at Seattle, succeeded in deceiving the prison physician, who, under the impression that he had developed a case of small-pox, had him removed to the hospital, from whence he escaped. It is believed that medicine causing an eruption had been smuggled into the prison.

FATHER CONVERSE, rector of St. Clement's Church, refers, in a letter received from Africa, to the condition of the leper hospital at Cape Town; and he says that since the heads of the department have been changed and new quarters are begun, and the old cleaned and repaired, the hospital is in a generally improved condition.

TALE OF AN AUTOPSY.—Mrs. Kate Kunkle, who lives at 5045 Lancaster avenue, called on Deputy Coroner Dugan, Monday, and complained that the body of her husband, who died on Sunday at the Presbyterian Hospital, was mutilated, without permission having been obtained, by a post-mortem examination, and asked a thorough investigation of the matter.

AT the Alfred Hospital, Melbourne, the following report was made as to the results of treatment in typhoid fever: Cases in ordinary wards, mortality 15.9 per cent.; in municipal tents, first season in use, 11.2; second year in use, 19.5; hospital tents, partially used last season, 7.8; same, quite new, 3.1. The number of patients treated is unfortunately omitted.

IT is reported that when one of Barnum's elephants gave birth to its young, some years ago, the placenta did not come away of itself, and the mother placed herself over the short post to which she was tied, and by bearing her weight on this post expressed the placenta from the uterus and vagina. This would seem to show that Crede's method was not wholly original with himself.—*Practice.*

THE cholera shows no signs of abatement at Jeddah. There are one hundred and seventy cases of the worst type of the disease in that city. The authorities have forbidden pilgrims who have been to Mecca to embark at Jeddah. Troops have been sent to guard all points on the Red Sea where persons from Arabia are likely to land. Cruisers assist in maintaining the cordon. The mortality continues about one hundred daily.

THE remains of a number of Hungarians were found in a brine pit, where they had been thrown forty-one years previously. The bodies were so well preserved that they could have been utilized for anatomical study. The salt had penetrated the tissues and was found deposited in the interior of the body. This shows how readily substances in solution pass through the skin, and explains the beneficial effects of mineral baths on the internal organs.

THE following were the operations of the Woman's Hospital during July: Patients treated in wards, 126; discharged, 75; new patients treated in clinic, 506; gynæcological, 205; medical, 134; surgical, 70; eye, 64; ear, throat, and nose, 75; electrical, 50; dental, 28; total visits to clinic, 2,533. New patients treated at home, 46; visits to out-patients, 229; births in hospital, 15; operations in house and clinic, 58; prescriptions compounded, 2,118; nurses in service, 46.

THE International Medical Congress closed its sessions on Saturday last. It agreed to meet at Rome in 1893, the proposal to meet in Chicago being refused. Six hundred and seventy-three Americans were present as delegates, and many of them read valuable papers. That of Dr. Horatio C. Wood, of the University of Pennsylvania, on "Anæsthesia," appears to have attracted great attention. During the week the delegates had a constant round of feastings and ceremonies whenever the scientific discussions were not in progress. Mr. Phelps, the American Consul, gave a dinner on Saturday night in honor of Surgeon-General Hamilton, and other army and navy surgeons.

CHIEF OF POLICE CROWLEY, of San Francisco, who has been at the head of the Police Department for eighteen years, has filed a strong indictment against the Chinese of that city. He says the Chinese there commit more crimes against the law, in proportion to their number, than any other race or community, and the detection of the perpetrators of such crimes is more difficult than the detection of criminals of any other class, because Chinamen refuse to disclose the identity of their criminals. They have no regard for the obligations of an oath, and are becoming more vicious and immoral year by year. The chief favors the removal of the Chinese quarters.

PATENTS GRANTED:—

ISSUE OF AUGUST 5TH, 1890.

Dental mallet and pliers	A. O. Corey	Council Grove, Kan.
Disinfectant	W. F. Simes	Philadelphia, Pa.
Inhaler	J. S Kinnear	Golden, Col.
Artificial leg	H. C. Wintermute	Kansas City, Mo.
Artificial limb	H. S. Swank	Columbus, Ohio.
Solidified perfume	G. H Dubelle	New York, N. Y.
Washing the fumes of sulphur	T. W. Montgomery & J. Warnke.	New Orleans, La.

TRADE MARKS.

Ointment (The words "Quinn's Ointment")	W. B Eddy & Co	Whitehall, N. Y.
Peroxide of Hydrogen (The word "Marchand")	Drevet M'f'g. Co	New York, N. Y.
Natural Mineral Water (The initials "J. C. E. & Co" and the word "Magnetic")	Geneva Magnetic Water	Washington, D. C.

LABELS.

Title: "Dr. W. T. Rowsey's Never Failing Whooping-Cough Remedy"	H. F. Rowsey	Toledo, Ohio.
Tittle: "Syrup of Figs"	Cal. Fig Syrup Co.	San Francisco, Cal.
Title: "Geneva Magnetic Mineral Springs"	Geneva Magnetic Water Company	Washington, D. C.

—Charles J. Gooch, *Patent Attorney.*

TREPHINING UNDER HYPNOTISM.—It is not generally known that Dr. A. B. Shaw trephined a man in this city, on May 15 last, while the subject was under hypnotic influence. The case was one of traumatic epilepsy, Jacksonian convulsions and hemiplegia existing. Dr. Benno von Steinmetz hypnotized the patient, and the operation was successfully performed before quite a large audience of physicians at St. Mary's Infirmary. The operation lasted one hour. Chloroform or ether could not be administered with safety on account of the heart and kidney lesions which existed. This case is one which, so far as we know, is an unique one of its kind.

—*St. Louis Med. and Surg. Jour.*

MONKEYS ATTACKED BY INFLUENZA.—Like the horses of Vienna and the cats of New Zealand, says a foreign writer, the monkeys of Southern India are numbered among the victims of influenza. A correspondent at Kurnul gives a harrowing account of how the epidemic has spread among the monkeys of the district. The animals were quite conspicuous one day by their absence, so that everything left out to dry on terraces was undisturbed—quite an unusual experience. Next morning they were seen in groups here and there, some coughing terribly, others reeling like drunken men, and then, later on, "the unpleasant stillness that reigned under the trees which afforded them shelter, was often disturbed by the crash of a heavy monkey coming precipitately down to the ground to die."

DURING July St. Louis reported 826 deaths; the annual rate per 1,000 being 22. The principal causes were:

Diarrhœa	144
Inanition	64
Phthisis	58
Marasmus	52
Convulsions	37
Heart diseases	34
Accidental	34
Pneumonia	27
Old age	27
Malaria	24
Meningitis	23
Bright's disease	23
Diphtheria	15
Cancer	15
Heat stroke	13
Typhoid	12
Apoplexy	9

THE *Medical Record* calls attention to the variability in the doses of the hyoscyamus alkaloids, and the consequent danger in prescribing them. Brunton gives a variation for hyoscyamine of from $\frac{1}{60}$ grain to 1 grain. Amosphous hyoscyamine is a mixture containing a little hyoscyamine and more hyoscine. Physicians should always specify the crystalline, and the amorphous should not be used at all. Of the crystalline hyoscyamine the dose is gr. $\frac{1}{120}$ to $\frac{1}{60}$; and of hyoscine the same. We have obtained very marked effects from the administration of $\frac{1}{100}$ grain of hyoscine hydrobromate; effects which were unmistakable.

THE American Rhinological Association will hold its Eighth Annual Session at Louisville, Ky., Oct. 6th, 7th, 8th.

All leading subjects relating to nasal and naso pharyngeal diseases will be opened for discussion by a leading fellow of the Association. The medical profession is cordially invited to attend.

The Secretary, Dr. R. S. Knode, Omaha, Nebraska, will furnish any information to physicians desiring to become members.

INTERMENTS in Philadelphia, from August 2–9, 1890:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess	1		Hydrophobia		1
Alcoholism	2		Homicide		1
Apoplexy	11		Inflammation brain	1	7
Bright's disease	7		" bronchi	1	1
Burns and scalds	1	1	" bladder	2	
Cancer	13		" kidneys	6	
Casualties	7		" larynx		1
Cerebro spinal meningitis		1	" liver	1	
Congestion of the brain	1	6	" lungs	9	5
" " lungs	1		" heart	1	1
" " liver	1		" periton'm	4	
Cholera infantum		50	" pleura	1	
" morbus	1	1	" s. & bowels	8	11
Cirrhosis of the liver	4		" spine	1	
Colic		1	Inanition		11
Consumption of the lungs	30	6	Intussusception		1
Collapse of lungs		2	Marasmus	1	32
Convulsions		20	Old age	11	
Croup		4	Obstruction of the bowels	5	1
Cyanosis		3	Paralysis	10	
Debility	3	2	Pyemia	1	
Diabetes	1		Rheumatism	1	1
Diarrhœa	4	1	Sclerosis of spinal cord	1	
Diphtheria		5	Septicæmia	2	
Disease of the spine		1	Softening of the brain	4	
" " heart	24	1	Suicide	1	
Drowned	2	1	Sunstroke	1	1
Dysentery	1	8	Syphilis		1
Dropsy	1	2	Teething		2
Epilepsy	1		Tetanus		2
Embolism, cerebral		1	Tumor	1	
Fever, scarlet		3	Ulceration of the bowels	1	
" typhoid	15	8	Whooping-cough		10
Hemorrhoids	1				
Hemorrhage	2	2	Total	210	220

TO CONTRIBUTORS AND CORRESPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from July 27, 1890, to August 9, 1890.

By direction of the Secretary of War, the ordinary leave of absence granted Major James P. Kimball, Surgeon, in S. O. 152, July 1, 1890, from this office, is changed to leave of absence on surgeon's certificate of disability, with permission to leave the Division of the Missouri. Par. 7, S. O. 182, A. G. O., August 6, 1890.

With the approval of the Acting Secretary of War, leave of absence for ten days is granted Captain Curtis E. Price, Assistant-Surgeon. S. O. 175, par. 3, A. G. O., Washington, D. C., July 29, 1890.

Changes in the Medical Corps of the U. S. Navy for the week ending August 9, 1890.

WALES, P. S., Medical Director. Ordered in charge of the Museum of Hygiene, Washington, D. C.

BRIGHT, GEORGE A., Surgeon. Ordered to the U. S. S. "Constellation."

MACKIE, B. S., Surgeon. Detached from the U. S. S. "Constellation," and to Naval Hospital, Philadelphia, for medical treatment.

DERR, E. Z., Surgeon. Ordered to the U. S. S. "Minnesota."

WAGGENER, J. R., Surgeon. Detached from the U. S. S. "Minnesota," and ordered to the U. S. S. "Kearsarge."

MOORE, A. M., Surgeon. Detached from the U. S. "Kearsarge," and granted three months' sick-leave.

Medical Index.

A weekly list of the more important and practical articles appearing in the contemporary foreign and domestic medical journals.

Injuries to the head, Battle. The Lancet. Brit. Med. Jour.
Incontinence of urine, due to atresia vaginæ, operation, recovery, Kohl. Weekly Med. Review.
Infektionskrankheiten, Jahresbericht. Deutsche Med.-Ztg.
Intra-cranial complications of chronic otitis media, Patteson. Dublin Jour. of Med. Science.
Influenza, report on, Fox. *Ibid.*
Influenza in Massachusetts, Shattuck. Bost. Med. Surg. Jour.
Influenza epidemic as observed at the Boston lying-in-hospital, Green. *Ibid.*
I progressi recenti nella terapia delle malattie cardiache. La Rif. Medica.
Ist die Lepra eine im Aussterben begriffene „Infectionskrankheit" u. ist sie erblich? Hansen. Arch. f. path. An. u. Phys.
Knife wound of heart, Pond. Pacific Med. Jour.
Klinische Vorlesungen über Pathologie u. Therapie d. Typhus abdominalis, Nothnagel. Internat. Klin. Rundschau.
Krankheiten der Luftwege und der Lungen, Herzkrankheiten, Arterienerkrankungen. Deutsche Med.-Ztg.
Le salicylate de bismuth dans l'otorrhee, Delie. Revue Med.
Laparotomy for removal of uterine appendages, Kinloch. North Carolina Med. Jour.
Locomotor ataxia with nuclear cranial nerve palsies and muscular atrophies, Peterson. Jour. of Nerv. and Ment. Diseases.
Laryngeal and other crises in tabes dorsalis, Van Gieson. *Ib.*
La diphterie à l'hopital des enfants, Philippe. Journal de Méd. de Bordeaux.
Le traitement du mal de Pott, Poisson. Gaz. Méd. de Nantes.
Laryngology and otology, their relations to each other, Roe. Jour. Amer. Med. Ass'n.
La exenteracion del globo ocular, Fernandez. Cronica.
La medicazione antisettica interna, Levi. La Rif. Med.
Leucocitemia reale e leucocitemia apparente, Maragliano e Castellino. *Ibid.*
Le vertigine di origine bulbare. *Ibid.*
Le albumine tossiche. *Ibid.*
Lateral curvature of the spine, Young. The Med. Age.
La circulation et le rôle des hydro-carbones dans l'organisme, Arnaud. La Tribune Méd.
La syphilis à Rome sous les cesars, Buret. Jour. des Maladies Cutan. et Syphil.
La technique de l'accouchement provoque, Treub. Archives de Tocologie.
La leche es esencialmente una emulsion de caseina que contiene accessoriamente otros productos, Lataste. Rev. Med.
Rapport sur l'autorisation à donner aux sages femmes de prescrire des antiseptiques, Budin. Arch. de Tocol.
Remarkable case of xanthelasma, Jackson. Jour. of Cut. and Gen.-Urin. Diseases.
Recent developments in massage, Graham. St. Louis Med. and Surg. Journal.
Ricaduta di polmonite con associazione di pleurite e pericardite in seguito a contusione, Minossi. La Rif. Med.
Riserche istologiche sulla sifilide intestinale, Sorrentino. *Ib.*
Railway injuries, statistical study of nine thousand three hundred and forty-eight, Outten. J. Nat. Ass'n Railway Surg.
Railroad surgery, 170 cases of, McHatton. South. Med. Rec.
Renal calculus with an unusual nucleus, Franks. Brit. M. J.
Rapport sur un cas probable d'anevrysme de la rate, Boursier. Jour. de Méd. de Bordeaux.
Resection de la hanche dans la coxo-tuberculose, Picque. Revue d'Orthopedie.
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Rheumatism, acute, in children, Parsons. J. Am. Med. Ass'n.
Removal of the posterior wall of the spinal canal, and opening of the dura mater spinalis in upper dorsal region for paraplegia, Dercum. Annals of Surg.
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Strangulated femoral hernia after parturition, operation, recovery, Kidd. The Lancet.
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Sull' infezione malarica primaverile, Bastianelli ed Bignani. La Rif. Med.
Sull' ischialgia scoliotica. *Ibid.*
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Suffocation, accidental, Biggs and Jenkins. N. Y. Med. Jour.
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Sur differentes variétés de pied-bot, Gibney. Rev. d'Orthop.
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Summer disturbances of children, Love. Med. Mirror.
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Sobre el tratamiento de las heridas por armas de fuego, Rodriguez. Revista Med. de Chile.
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Subluxation de l'atlas sur l'axis, Christovitch. Bulletin Général de Therapeutique.
Troubles divers de la nutrition à la suite de dermatite artificielle, Quinguard. La Trib. Méd.
Traitement chirurgical des petits neoplasms sessiles du bord libre des cordes vocales, au moyen d'une curette speciale, Luc. La France Méd.
Traitement des adenites tuberculeuses, Daudofs. Rev. Méd.
Traumatic neuro-psychoses, Walton. Jour. Nerv. Mental Dis.
Tratamiento de la angina difterica, Torre. Cronica.
Traumatic subclavian anuerism, ligature of innominate and carotid arteries, death, Twynam. The Lancet.
Therapie der Syphilis, Caposi. Wiener Med. Presse.
Tuberculosis of the lymphatic glands of neck, and its surgical treatment, Graff. Weekly Med. Rev.
Traitement da la phthiraise, Grellety. J. des Mal. Cut. Syph.
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Trephining for paralysis of speech following an injury, Jones. N. Y. Med. Jour.
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Tracheotomy, Dawson. Jour. Amer. Med. Ass'n.
Tropho-neurosis of the oral cavity, with especial reference to syphilitic neurosis, Lydston. Medical Age.
Traitement des suppurations d'origine uterine, ayant pour siège l'uterus et ses annexes, Bean. Le Bulletin Méd.
Uræmia connected with pregnancy, Swift. Bost. Med. Surg. J.
Un cas d'anemie aigue grave post partum, guéri par lavements d'eau salée, Heer. Revue Méd.
Un cas de septiceme hemoragica si pigmentare cu unele caractere ale tifusului exautematic, Babes si Oprescu. Clin.
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Un cas de psychose hereditare degenerative, Voisin. Le Bulletin Médical.

The Times and Register.

Vol. XXI, No. 8. NEW YORK AND PHILADELPHIA, AUGUST 23, 1890. Whole No. 624.

PAGE

ORIGINAL ARTICLES.

PHLYCTENULAR KERATITIS. By C. W. Tangeman, M.D. - - - - - - - - - - 161

A FEW MORE REMARKS ON DERMATITIS HERPETIFORMIS. By A. Ravogli, M.D., Cincinnati, Ohio - - - - - - - - - - 163

REPORT OF ONE YEAR'S WORK OF INTRAPELVIC SURGERY FOR THE RELIEF OF INFLAMMATORY DISEASES By Rufus B. Hall, M.D. - - - - - - - - - - - - 167

SOCIETY NOTES.

The Recognition of Eye strain by the General Practitioner. *Jackson* - - - - - - 169

THE POLYCLINIC.

MEDICO-CHIRURGICAL HOSPITAL: Iodol *Waugh* - - - - - - - - - - - 172

EDITORIALS.

ADDRESS ON MEDICINE BEFORE THE BRITISH MEDICAL ASSOCIATION - - - - - - 173

ANNOTATIONS.

Results of an Investigation of Matè - - - 174
Interest Shown by Electric Light People in Condemning Execution by Electricity - - 174
Hemiplegic Epilepsy - - - - - - - - - 175

PAGE

LETTERS TO THE EDITOR.

Electric Shock. *Ellyson* - - - - - - - - 175
The Catskills. *Atkinson* - - - - - - - - 175

PARIS LETTER. *Linn* - - - - - - - - 175
Jealous Insanity. *Ball* - - - - - - - - 175
New Treatment for Cholera. *Roux* - - - 176
Aniline Colors in Therapeutics - - - - 177
The New French Medical Bill - - - - - 177
Foreign Medical Students in France - - 177

BOOK NOTICES.

Essentials of Anatomy and Manual of Practical Dissection, Together with the Anatomy of the Viscera *Nancrede* - - - - - 178
Essentials of Refraction and the Diseases of the Eye. *Jackson*: and Essentials of Diseases of the Nose and Throat. *Gleason* - 178
A Compend of Equine Anatomy and Physiology. *Ballou* - - - - - - - - - - 178
Wood's Medical and Surgical Monographs - 178

PAMPHLETS - - - - - - - - - - - 178

THE MEDICAL DIGEST.

Exophthalmic Goitre. *Herdman* - - - - 172
Scarlet Fever, Measles, and Diphtheria Running Together in the Same Individual, *Taylor* - - - - - - - - - - - - 172
Hoffman's Anodyne for Neuralgia. *Kums* - 178
Agaricin in Night Sweats of Phthisis - - - 178
Amyene Hydrate. *Merck's Bulletin* - - - 178
Bismuth in Gleet *Bennett* - - - - - - - 178
Typhoid Fever and Venereal Diseases. *Isham* - - - - - - - - - - - - 178
Pigmentation Following a Burn. *Faulkner* 178

PAGE

Pilocarpine in Puerperal Convulsions. *Edwards* - - - - - - - - - - - - - 178
Hepatic Abscess. *Hache* - - - - - - - - 178
Paroxysmal, Spasmodic Indigestion. *Upshur* - - - - - - - - - - - - - - - 179
Agaricic Acid for Night Sweats of Phthisis. *Kahler* - - - - - - - - - - - - - 179
Adonidin. *Oliveri* - - - - - - - - - - 179
Diabetes Insipidus. *Lindsay* - - - - - - 179
Phenyl-acetic and Beta phenyl-propionic Acids for the Appetite. *Merck's Bulletin* - 179
Mercury Hypodermically. *Szadek* - - - - 179
Antipyrin in Dysmenorrhœa. *Reding* - - 179
For Hæmoptysis. *Waugh* - - - - - - - 179
For Infantile Pneumonia *Waugh* - - - 179
For Cholera Morbus *Waugh* - - - - - 179
For Summer Diarrhœa in Children. *Waugh* - - - - - - - - - - - - - - 179
For Summer Diarrhœa in Adults. *Waugh*, 179
For Amenorrhœa. *Winton* - - - - - - 179
Urine of Typhoid and Scarlet Fever Patients. *Luff* - - - - - - - - - - - - 179
For Epilepsy - - - - - - - - - - - - 179
The Silver Lines of Pregnancy. *Langdon* - 180
Diagnostic Tables. *Harte* - - - - - - - 180
Normal Sleep, like Hypnotic Sleep, the Result of the Inhibition of Intellectual Activity. *Brown-Séquard* - - - - - - - - 180
Placenta Prævia. *Dempsey* - - - - - - - 181

MEDICAL NEWS AND MISCELLANY, 181

ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - - 183

MEDICAL INDEX - - - - - - - - - - 184

NOTES AND ITEMS - - - - - - iv, xiv

Original Articles.

PHLYCTENULAR KERATITIS.[1]

By C. W. TANGEMAN, M.D.,

Assistant to the Chair of Ophthalmology at the Medical College of Ohio.

THE frequency of corneal diseases is exceeded only by diseases of the conjunctiva; while the interest at stake to both physician and patient is certainly greater in the former class of trouble. We will select for our consideration in this paper, a given type of corneal inflammation, since the subject generally would be entirely too tedious.

Corneal diseases, for the sake of ready conception, are divided into three great classes: 1. Infiltration. 2. Abscesses. 3. Ulceration.

The disease that we want to consider here, belongs to the first classification. It is distinctly an infiltration between the layers of the corneal tissue, and if you will indulge me for a few minutes I will refer to the anatomy of this structure very briefly.

If you will make a section through the various layers of the cornea, and place it under the microscope, you will see a picture much as is represented here in this drawing, though it is somewhat diagrammatic. There are five distinct layers; the first, made up of four or five layers of epithelium, as you see here, the second is the anterior elastic lamina, or "Bowman membrane," on which the epithelial layer rests. It is made up of connective tissue and is inseparable from the third layer, or the corneal tissue proper, called the "Substantia propria." It is made up of small bundles of fibrils, regularly arranged, so as to permit of spaces and interstices between them, which act as lymph spaces or channels. Fourth, we have elastic membrane, again the same as anteriorly, and resting on the fifth layer, which is made up of endothelium.

The cornea is an extra vascular structure, and depends on the lymph circulation for its nutrition. The nerve supply is quite rich, the larger trunks splitting up into minute fibrillæ, and ending in the epithelial cells of the first layer. The anterior layer is constantly shed and reproduced, so that if an abrasion should occur, the loss will soon repair. Nature has provided a barrier against destructive processes in the presence of the anterior elastic lamina; this layer is not reproduced, neither is the third layer. If the disease breaks down these two layers the repair is by cicatricial tissue, which is always opaque. The point that we wish to make here is that when the pathological process extends beyond the superficial layers, an opacity of the cornea is the consequence. Phlyctenula, means bubble up, forming a tumor under the epidermis. In this connection it is forming a tumor under the first, or epithelial layer of the cornea.

The very great difference between infiltration generally and the specific one referred to to-day, is as the name indicates; it is very superficial, the infiltration is chiefly between the first and second layers, as I have attempted to represent in this drawing.

Pathology.—According to the observation of Ivanhoff there is a subepithelial exudation of fluid, caused by an irritation along the branch of the fifth nerve, as it passes to the epithelial layer, causing an elevation or a bubble. There is a collection of round cells, at the end of the nerve, and this forms the typical phlycten. The infiltration may extend deeper and the haziness of the cornea become greater. Should, for some reason, the infiltration become so extensive as to disturb the arrangement of the substantia propria, or the nutrition of the structure be interfered with, causing a breaking down of the various layers, an abscess or an ulceration, and an indelible opacity will result.

Phlyctenular keratitis is circumscribed and not very extensive, but secondary changes may set in and give us a picture much modified from the one just described. The epithelial covering is very fragile,

[1] Read before Ohio State Medical Association, June 6, 1890.

and we have resulting an ulcer which, in certain patients, and under proper conditions, may be difficult to treat and endanger sight.

Variations.—Many subdivisions wholly dependent on the fact that the changes caused in the cornea and the various structures of the eye-lid, which naturally follow as a consequence of inflammation of the cornea, are not always the same in different patients, or under different circumstances in the same patients.

This disease is almost distinctly a disease of childhood, seldom observed before the age of two years, and found only under one circumstance after the age of eighteen or twenty. It may appear in one or both eyes at the same time, but usually one eye is involved first. Scrofula, as was once supposed, has nothing to do with the cause of this disease, but it runs a very tedious course in children belonging to this class. It is not often that we see a typical phlyctenule developing, despite the frequency of its occurrence since the many changes that are produced so readily by surroundings or constitutional influences.

A process that appeared quite typical at the onset, extends to the deeper layers of the cornea, and danger of perforation and prolapse of the iris is imminent. On the other hand, instead of remaining circumscribed, the process extends, and a corneal opacity covers the papillary area, which may remain permanently.

There may be but one vesicle situated at the sclero corneal junction, or there may be so many as to encircle the entire cornea, as it were, with a fringe. This is noticed more frequently in the colored race, which seems specially susceptible to this disease.

The vesicle may appear centrally on the cornea and pass through the various stages and disappear, and not show a trace of blood-vessels, while in another attack in the same patient the process is accompanied by the formation of blood-vessels that cross the sclero corneal border and reach the seat of inflammation.

Causation.—Little can be said about the causation of this disease, unless we accept the theory recently advanced, that it is due to a micrococcus. At any rate the disease can be brought about by inoculation. That constitutional taints and surroundings play a modifying rôle, cannot be denied, but only in a very limited number of cases is it observed, and only in these cases is constitutional treatment required.

In some patients, attacks of phlyctenular keratitis come on quite frequently without apparent cause, unless it be that they are using their eyes. Their eyes are on a strain, caused by some refractive error or muscular asthenopia. This once remedied, the patient makes a rapid recovery, and may never have another attack of the disease. These cases are simple. The class of cases giving the physician most worry and anxiety, are those in which the child (it may be well nourished and perfectly healthy), develops, aside from the local inflammation, a certain chain of nervous symptoms. The lids are spasmodically closed, so completely as to resist all of the efforts of the physician to pull them apart. When the cornea is exposed you will see a circumscribed, gelatinous looking mass, varying in size from a grain of mustard seed to a hemp seed, slightly elevated above the surrounding cornea, which has a bluish-hazy tint, due to infiltration. A leash of blood-vessels are seen to cross the sclero corneal junction and run to the point of irritation. This process may grow or a second phlycten may develop, giving to the cornea the appearance of pannus.

This disease is known as one of the sequelæ of acute infectious diseases, especially measels. You will have observed that this disease occurs nearly always in children only. Mucous membranes are very susceptible to inflammation in childhood, especially is this the case in the acute infectious diseases. The anterior portion of the cornea, or the first layer, is histologically the same as the conjunctiva, and it is the writer's opinion that the process on the cornea is different only in as much as the modified tissue makes it necessary. If we accept this view, then the same cause producing the inflammation of the mucous membrane of the mouth, nose and lungs in measles, also causes phlyctenular conjunctivitis and keratitis. Filth, negligence and bad hygiene, undoubtedly have an influence in this disease, but do not act as causative, as has heretofore been supposed.

Symptomatology.—The symptoms of this disease are characteristic, while the disease may run an acute course in one instance and a chronic in another, yet the subjective symptoms are so typical that a diagnosis could be made as the child is passing through your door-way on its mother's arms.

The most marked and obstinate symptom is photophobia—sensitiveness to light. It was supposed that the sensitive nerve endings, as in the process just described, we had a good explanation of this symptom, but in some of the worst cases the amount of photophobia, and the extent of corneal damage, is so out of all proportion, that in my estimation we must look for another explanation. A great deal of the nervous element seems to be present. There is a spasmodic contraction of the orbicular muscles. The frontal and orbital muscles are firmly contracted, and it is often quite difficult to even get a glimpse of the cornea.

Anæsthesia, external canthotomy, plunging the child's head under water, are suggested by the older writers as means of breaking the spasm. Tearing is profuse, when the lids are pulled slightly apart a gush of water takes place, as if you had caused a loss of the aqueous humor. In older children you will find that they are constantly mopping their eye. This secretion is many times so acrid as to cause excoriation of the integument of the face about the eyes, nose and lips. The external angle of the lids is always excoriated, and when the lids are forcibly pulled apart bleeding takes place, and great pain is caused. The eye-lids are swollen and puffy, caused by disturbance of the circulation when the lids are spasmodically contracted for days at a time. Now let us instil a few drops of a 5 per cent. solution of cocaine, and in a few moments we can inspect the eye-ball. The conjunctivæ of the lid and bulbus are reddened, but you can soon see that the cause of the redness is not a conjunctivitis, but simply an extension of the irritation from the cornea.

Most frequently we find the recent seat of the disturbance at the sclerocorneal junction. It may be but a small abrasion, or extend as an abrasion along this border for some little distance, or we will find a distinct vesicle slightly elevated looking as if it had a gelatinous base, situated at the margin of the cornea and possibly fringing its entire circumference. Or one or more vesicles may be situated on the cornea. When the phlycten is situated on the cornea, as a rule, a bunch of blood-vessels cross over at the nearest corneal border, and run towards the vesicle. These vessels are new formations and are quite superficial. Sometimes the phlycten has clear cut edges, and then again a margin of infiltration extends into the corneal tissue for quite a distance. It is more frequently that we see the phlyctenular process as an ulcer with a dirty base than a vesicle, since the covering is quite delicate and is easily broken. These

many variations that have been so briefly referred to are no doubt produced by the same cause; but the idiosyncrasies of the patient, his habits and surroundings are the cause for the difference in appearance.

Prognosis.—The prognosis of this particular form of corneal disease is not so unfavorable as might first appear. The process is one involving the superficial layers, and while the infiltration may be quite extensive, the cloud like opacity disappears quite easily. Should an ulcerative process set in and extend to the deeper layers, repair is by cicatricial tissue, and an opacity more or less dense will remain permanently. It is in this manner that perforation of the cornea, with all its unpleasant symptoms, occurs; but this is exceedingly rare. It is easily comprehended that only when an opacity is centrally situated or extends into the pupillary area, does it disturb vision; and, if you prevent an extension of the disease to the center of the cornea, or limit the pathological process when found centrally to the superficial layer of the cornea, vision will not be affected by it. Relapses are not infrequent, and may continue to annoy the child for years; in older persons we find that these are the ones benefited by glasses.

There is another point which we must refer to in this connection, namely, the sluggishness of repair. It may require months of patient treatment to repair the damage done in two or three days. The newly-formed blood-vessels get smaller and finally disappear; the general infiltration is cleared up, leaving a clear-cut, sharply-defined, grayish opacity at the seat of disease. The redness of the conjunctiva disappears as the disease runs its course.

Differentiation.—It is not difficult to diagnosticate this disease. Should the corneal opacity be dense and centrally situated, there is danger of mistaking it for cataract, but only by those not informed. In the variety known as Bushel Keratil of the Germans, where there is a profusion of blood-vessels developing on the cornea, all pointing to a central point as an apex, there is danger of mistaking the disease for pterygium.

Treatment.—In the treatment of this disease there are three points that we must bear in mind: first, the ætiological factors in the case; secondly, the corneal process itself; and, lastly, the accompanying symptoms. If you should discover the cause of the disease in any case, while treating it during the recurring attacks, it would be an important factor, since the course of the disease could be very much shortened, if not prevented altogether. For example, if we should discover that recurring attacks of phlyctenular keratitis are caused by some refractive trouble, its correction is, likely, all the treatment that is required to prevent further trouble. What interests the patient most is whether the corneal opacity can be removed. When centrally located, it materially disturbs vision; while it is a deformity at best. Constitutional remedies are but seldom indicated. Should we discover a malarial element or a periodicity, antiperiodics are indicated. Sulphide of calcium in half-grain doses, repeated two or three times daily, is often of great service in checking this disease, especially when the submaxillary and the cervical glands are involved, or when there is ulceration of the cornea. The only drawback with this agent is you can never tell beforehand whether it is indicated or will be of any service in a given case. Antiphlogistics are never indicated. Local applications are made for two purposes: first, to control the inflammation of the cornea and lid, and then to hasten repair. Eserine, the active principle of Calabar bean, will undoubtedly be found to be more effective to accomplish these two purposes than any other agent. Irritants are to be strictly avoided as only aggravating. Atropine is only of service where a refractive error is the cause of the disease. It increases intra-ocular tension, and is therefore often inadmissible. After the acute symptoms have passed away, our aim should be to increase the absorptive powers of the cornea, to relieve this tissue of its infiltration or engorgement. The sooner this is done, the less permanent damage is done to the cornea. Cocaine is a valuable agent in this disease; it lessens intra ocular tension, and relieves much of the pain and sensitiveness to light that these patients complain of. Hot water applied to the closed lids every four hours, for a few minutes at a time, is often found to give the patient much relief. When the tearing has ceased, no better remedies than the mercurials in ointment form can be employed, and preferably the yellow oxide. This applied but once a day. If there is any virtue in hastening absorption by the use of irritants, then we have combined in the above remedy all that is elegant and efficient. The question is often asked, How long must treatment continue? It is dangerous to risk a prognosis; but you will always find that it is more easy to remove a recent opacity, occurring in a child, than one of long standing, or when found in an adult.

A few years ago the author pointed out the usefulness of the fluid extract of jequirity in these cases, where ulceration has set in and the healing process is very sluggish. A single application seems to be sufficient to stimulate and hasten repair.

A FEW MORE REMARKS ON DERMATITIS HERPETIFORMIS.

By A. RAVOGLI, M.D.,
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SINCE Duhring, in 1884, called the attention of dermatologists to a group of eruptions of the skin, under the name of dermatitis herpetiformis, the interest in these eruptions has greatly increased, because many affections of this kind could here find their right nosological place in dermatology. Many of these cases were formerly confounded with erythema multiformis; others with herpes iris; others with pemphigus; impetigo herpetiformis Hebræ remaining a peculiar eruption, out of any definite nosological class. As the bulla was characteristic of pemphigus, so every bullous eruption was characterized as such, and, on account of the pruritus, the adjective of pruriginosus was added.

Duhring's work consisted in definitely establishing the general symptoms which constitute the type of these eruptions, and thus referring them all to one group.

These group symptoms are as follows:

1. Polymorphism of the eruption
2. Paresthesia;
3. Chronic course and relapse;
4. Relative general good feeling.

Certainly, the disease is not a new one, for we find many descriptions of eruptive diseases of this kind scattered in the books of different authors, called with different names. To day these various eruptions are to be referred to this type dermatitis herpetiformis. So we find herpes phlyctænoides in Chaussit, 1852; pemphigus circinatus in Rayer, 1828; pemphigus chronicus in Rach, Jr., 1841; pemphigus compositus, herpes pemphigoides, or pemphigus herpetiformis, in Devergie.

Cazenave[1] had already remarked that pemphigus sometimes is accompanied with different eruptions, like herpes and prurigo, and in this case the affection resembles pompholix pruriginosus Willan, where the patient is troubled with itching and burning sensations. In these cases small vesicles are mixed with large bullæ, aggregated into groups, resembling herpes phlyctænoides, while large bullæ of pemphigus are scattered on the cutaneous surface.

In Bazin, under the article arthritides bullosæ, we find a description of two varieties of bullous eruptions, viz., pemphigus arthriticus and hydroa bullosa, where he includes all the symptoms of dermatitis herpetiformis.

Auspitz[2], under the head of neuritic dermatoses, established a group of eruptions which he named inflammatory trophoneuroses with acyclic course. He gave to this class of eruptions the generic name of erythanthema, which he divided in two families, viz., those affecting the skin superficially, and those affecting the skin deeply. He divided the last family into species vesicular, pustular, and bullous, including herpes circinatus, iris, annulatus, herpes phlyctænoides. As herpes impetiginosus he understood the disease described by Hebra as impetigo herpetiformis.

It would be superfluous for me, in the brief space allowed, to go on to review all the authors who before Duhring described cases of this disease under one name or another, but I must refer the reader to the beautiful and complete work of L. Brocq, on Dermatitis Herpetiformis Duhring.

Brocq differs with Duhring as regards the name, and he prefers dermatitis polymorpha pruriginosa chronica à poussées successive. It is a question of nomenclature, but the form remains the same, and we must be grateful to Duhring for having traced the principal symptoms which form the characteristics of this peculiar affection. The name of dermatitis, inflammatio cutis, inflammation of the skin, seems to be rightly applied, as vesicles and bullæ are situated on a red halo; and this redness precedes the spreading of the eruption. The adjective herpetiformis gives the idea of vesicles with a tendency to aggregation.

There is no question that one of the most remarkable characteristics of this affection is the disposition to relapse; when a spot is nearly healed up, a new crop of vesicles or bullæ comes up again. The genius of relapsing is so characteristic of this affection that, as Unna remarked,[3] the cases referred to by Brocq, where no relapse had been seen, ought to be excluded from this group.

Paresthesia, perversion of the sense of touch. This is the itching sensation, and is the dominant symptom in this disease. The patient complains of an itching and burning sensation together, which often prevents him from sleeping, and obliges him to scratch his thick and infiltrated skin. This symptom is so important as to distinguish a case of dermatitis herpetiformis from a case of a true pemphigus. The restlessness and the continuous scratching of the patient affected with this disease contrasts a great deal with the quietness and the dread of changing position in the patient affected with true pemphigus. According to Unna, pemphigus pruriginosus is to be taken out of the group pemphigus, and is to be comprehended in the group dermatitis herpetiformis. The perversion of the sense of touch, revealed by the itching, shows the disorder in the sensitive nerves, which is the causa proxima of this disease.

Polymorphism of the exanthema forms another characteristic of the disease. Papules, vesicles, bullæ and pustules are found together in a striking way; but we can assert that the predominant feature is the vesicle and the bulla. I seldom saw a true pustula, but mostly the vesicles or bullæ filled up with a turbid and purulent exudation. This remark has already been made by Brocq. The condition of general health maintained in this disease must be considered only as relative. The patient does not lose his appetite, but on account of the itching sensation loses a great deal of sleep, and, in some cases, wastes away considerably.

To give a practical example, I will take the liberty of reporting, as briefly as possible, a case of dermatitis herpetiformis, which I had the opportunity to study from its very beginning.

A gentleman, N. S., fifty-three years old, in the best of health, who had never had any disease of consequence, in very good financial condition, called upon me in April, 1889, complaining of an itching sensation all over his body, but more intense on the chest and on the arms. The skin, white and smooth, was furnished with an abundant *panniculus adiposus*, and did not show anything with the exception of a few small red maculæ in the middle of the chest. A mild alcoholic solution of carbolic acid was prescribed, for the purpose of diminishing the itching sensation. A few days after, the patient came back complaining that the itching sensation was still more intense, and at this time small papules, like in eczema papulosum, were scattered on the chest and on the shoulders. Under the impression that I had to do with an eczema papulosum, a salve, consisting of oxide zinc, subnitrate bismuth, carbolic acid and vaseline, was given to be rubbed on the eruption. A few days after, a papular eruption was spread all over the body and on the limbs. The skin was red, and of the papules, some were small, of the size of a grain of millet, and some larger, polygonal in shape, and depressed in the center, resembling exactly the papules of lichen ruber planus. At this time I had the idea that the case was one of lichen ruber scarlatiniformis. I prescribed then Asiatic pills, from two to four a day, and baths with water wherein some wheat bran had been boiled, assuring the patient that in a few months everything would return to the normal condition. From this time I did not see the patient. Three months after, I was called in consultation to see the same gentleman. All his body was covered with bullæ filled up with clear serum, ranging in size from that of a pea to that of a hen's egg. Where the bullæ were broken, large excoriations remained. In the places where bullæ had already healed up, the skin was dark brown in color; thickened and large flattened papules were raised above the level of the skin.

Bullæ were also coming on the mucous membrane of the lips, of the mouth, and of the throat. These bullæ soon broke, leaving excoriations. The patient was extremely nervous and excitable, but his appetite was relatively maintained, and he could take a sufficient quantity of nourishment.

The patient would get better from time to time; his excoriations would heal to a considerable extent, and we would all begin to hope for recovery, but relapse was seen to occur and was always preceded by slight elevation of temperature.

At one time the whole body was one sore; bed clothing and everything stuck together. We feared reabsorption, and it was necessary to put the patient

[1] Abregé pratique des maladies de la peau, 1847.
[2] System der Hautkrankheiten. Wien, 1881.
[3] Ueber die Duhring'sche Krankheit und eine Form derselben. Monatshefte f. Pract. Derm. B. ix, No. 3.

into a continuous bath. This, however, could only be used at intervals, as the patient complained of chilliness, and it was necessary to have the water at the temperature of 98° F., which made him weak and produced congestion in the circulation of the brain. The continuous bath, in spite of all the difficulties, acted very satisfactorily. The eruption of new bullæ subsided, and the extensive excoriations healed up considerably in about three weeks' time. But after three weeks we were obliged to quit the bath, because this chilling was so bad that the patient could not stand any more. The patient was now anointed with different salves, vaseline and salicylic acid, olive oil and carbolic acid, always in very mild proportions. New bullæ continued to appear, which became rapidly purulent, and the patient began to show symptoms of pyohemia. Fever ranged between 101° to 103°; pulse very weak and over 120, and his life was in great danger.

Abundant doses of quinine reduced the temperature, and the large discharging sores were dusted with iodoform powder, and covered then with iodoform gauze. This treatment helped him; the fever disappeared, the excoriations gradually healed up, so that the patient was able to get up and go out riding. When I left the patient, he was almost well; no new bullæ were coming, and there remained only some itching sensation. His sleep was tolerably good, appetite excellent. He wished to go to some resort, and chose Old Point Comfort.

I must remark some peculiar features of the general symptoms. The urine had been carefully examined every few days, and it was found always of a normal acid reaction; never could any trace of albumen be detected; urates and phosphates were somewhat in excess. The most interesting symptoms were revealed in the nervous system. At times the gentleman was somewhat stupid, taking but little interest in surrounding things; at times he was irritable; and for some time was slightly delirious during the night. His sleep was very agitated; he slept only a few minutes at a time, and no hypnotic could produce a few hours of rest. Night-sweats were very profuse, especially late, when he was improving.

In order to give a complete account of the case, it must be related that the gentleman had another relapse at Old Point Comfort. He was not satisfied in the treatment and he left for Philadelphia, where he went under the care of Duhring. From Philadelphia he went to New York, having another relapse, and put himself under the treatment of Elliot and Bulkley. He came back to Cincinnati, with still another relapse, and is now again under my charge.

It will be seen that the general feeling of well being, which is said to be characteristic of this disease, is to be taken with a grain of salt; that, indeed, there are many interesting symptoms affecting the general health, and more conspicuously the nervous system.

In the beginning I called this case pemphigus pruriginosus, and I find that it has some likeness to the case lately published by Dr. Henry G. Piffard[1] under this same name. However, I do not see any reason for leaving these cases separated when we can refer to one group diseases which have the same symptoms in common and have nothing to do with real pemphigus.

Until here I have spoken of dermatitis herpetiformis, which has been more frequently observed, as an eruption of papules, vesicles, and bullæ, with a disposition like herpes, disseminated on the surface of the body, which, although of long standing, shows in its relapses a kind of acute course.

I wish now to call your attention to another case of the same kind, in which the eruption runs an exceedingly chronic course, and has a kind of progressive way of spreading over the skin by continuity.

This is a lady, Mrs. E. Z., fifty-nine years old; she has always enjoyed good health; she is five feet tall, one hundred and seventy pounds' weight, fleshy. Her skin is white and delicate, panniculus adiposus abundant. She has been always in very good financial condition, belonged to the highest society. Four years ago she lost her husband under the saddest conditions. After the death of her husband, many of his investments were found to be reckless. The loss of her husband and her financial troubles threw her in a deep grief. About three years ago there appeared on the index of the left hand an eruption in form of vesicles filled up with purulent matter. The eruption spread slowly over the back of the hand for a time, then stopped; but the skin remained thick and of a brownish-violet color. A few months afterwards an eruption of vesicles appeared on the lips, around the ears, and on the temporal regions and the toes, and the back of the right foot. At this time I was called in consultation by her family physician. The surface was completely covered with thick, yellow-brownish crusts, having the appearance of an eczema impetiginosum. After having removed the crusts with applications of olive oil, the surface was found affected in large spots, in the center of a dark-brown color, with papules and pustules scattered over, and in the periphery deep excoriations in a semicircular disposition; itching and burning sensation accompanied the eruption.

Still under the impression that I had a case of eczema to deal with, I applied unguentum diachylon Hebra, spread on muslin. The result of this application was not satisfactory, as it brought out many more vesicles, which were early broken, and left the surface more excoriated. The disease spread upon the periphery of the plaques in form of a row of vesicles upon an inflamed basis.

Vesicles and pustules of the size of a millet seed appeared on the tongue and on the mucous membrane of the mouth and of the nose. These soon broke, causing serous discharge from the mouth and from the nose.

At this time a mild salve of resorcin was used (half drachm in one ounce of vaseline); but the burning caused thereby was so great that it was necessary to stop its application immediately. Internally, solutio Fowleri arsenici, in doses of from six to fifteen drops a day, was prescribed.

New conglomerated vesicles were continually developing at the edges, forming semicircles. The epidermis covering the vesicles was easily removed, leaving the excoriations in the form of crescents, extending on the parietal region. Another spot developed in the same way on the occipital region, running downward on the back of the neck. Every active remedy had proved unsatisfactory, increasing the irritation and bringing out new crops of vesicles; so we resorted to indifferent means, so as only to cover the skin and protect it from the contact of the air. The surface discharged a great quantity of serous fluid, which stuck the hair together, took an offensive smell, irritated the healthy skin with which it came in contact, and caused an unbearable itching sensation. The surface, therefore, was washed twice a day

[1] *Journal of Cutan. and Gen.-Urin. Diseases.* New York, April, 1890.

with a mild solution of carbolic acid, and, after having been dried as well as possible, a salve containing subnitrate of bismuth, oxide zinc, in the proportion of half a drachm to one ounce of vaseline, with ten drops o carbolic acid, was applied with a brush. In this way the inflammation diminished and the excori ations healed up. The surface of the skin, however, remained highly pigmented, showing a dark-brownish color, and because of abundant granulations, it presented flat papules, similar to those seen in impetigo herpetiformis; hence the name given by Auspitz,[1] herpes vegetans.

The affection was now at a kind of stand-still; the excoriations were in great part healed up, the discharge of serum nearly stopped. Once in a while a few small vesicles would appear on the old affected spots. As it was in summer time, the patient thought that, if she went to some watering place, she might derive some benefit from the change of climate. I therefore lost sight of the patient for about nine months. I must express my thanks to Dr. Jos. Ransohoff, who called me again to see the case.

The eruption at this time had affected the forehead, the eyebrows, the eyelids, the nose, both cheeks, lips, and chin; extended over the whole neck, down upon the breast, and backward on the shoulders—representing exactly a lace fichu. The skin was dark, brownish-red, slightly swollen, with large, flat papules, lighter in color, raised above the level of the normal skin. At times, crops of miliariformis vesicles and pustules appeared, scattered over this affected skin. The edges were raised above the level of the normal skin, showing an uninterrupted row of vesicles, whitish, pulpous, from the size of a millet-seed to that of a split pea, on a red, inflamed halo, which is extended upon the healthy skin. The whole resembles to some extent a burn produced by hot water. The slightest contact or rubbing removed the epidermis, and left an excoriation in semicircular form: neatly cut, as if it had been done with a penknife. The itching sensation was unbearable, but the general health of the lady was relatively good; appetite and digestion good; the bowels regular. Sleep was disturbed by the itching sensation; but, in spite of it, the lady got some rest at night, at intervals.

It is worthy of remark that, at each new eruption, the patient complained of some chilly sensation towards evening; and, when the eruption was spreading so badly, she had some fever. New spots are now coming; one in the middle of the breast, and one under the axilla. A small bulla of the size of a pea is the beginning, and this soon dries up, forming a slight brownish crust; then vesicles appear around the first, forming the spot, which grows and spreads regularly.

At present I am treating the patient with only ichthyol. She takes from thirty to forty drops of ammon. sulphoichthyol. a day, internally; and, externally, I paint the surface with a lotion of ichthyol, aqua rosæ, and glycerine, equal parts. At first it caused some burning sensation, but soon it diminished. The itching sensation has diminished a great deal and the swelling is going down. Few new vesicles and pustules are coming, and the old papules are slowly diminishing. The edges are still excoriated and discharging seropurulent matter. The face is covered with pasta zinci mollis with ichthyol, according to Unna.

Looking over the literature of this disease, I find that there is an analogy between my case and a few cases which have been reported by Brocq in his dermatitis polymorpha pruriginosa chronica a poussée's successives, varietas gravis. The first, No. 29, from Dr. Lailler, the eruption, spreading slowly, covered the whole body, and had a fatal end. Two other cases, under the numbers 31 and 32, the first from Bazin and the second from Rayér, have a great likeness to the one under consideration.

The cause of this disease is still in darkness, but without doubt it lies in an alteration of the nervous system, as is the case in herpes zoster. The disease is not contagious, and the fluid of the vesicles inoculated in rabbits has never given any results. The lady patient, of a very irritable nature, suffered for years under a great grief; the moral trouble may have influenced her nervous system.

Brocq would not grant too great an influence to moral impressions, but would rather attribute the cause to an arthritic diathesis. In both our patients there was no sign whatever of rheumatic diathesis, although both were used to very high living. I return to my first idea, that the cause of the disease is to be found in the nervous system, which opinion is also maintained by Bulkley, Lineing, Alfred Wiltshire and Wyndham Cottle, for herpes gestationis.

The first symptom of this disease consists in the perversion of the sense of touch, paresthesia, itching sensation, which shows that the sensitive nerves of the skin are affected. The itching and burning sensation in some cases is limited to the place of the skin which is affected, in others is spread all over the body. The patient cannot stand the pruritus, and scratches his skin to get some relief from his troublesome sensation. In our first patient the itching sensation was spread all over the body, but in the lady this was limited to the affected places, and preceded the new eruptive plaques. It seems that the paresthesia is the symptom which speaks most for an alteration of the nervous system. If the itching sensation follows the eruption, then it must be believed that the infiltration and the anatomical alterations in the texture of the skin were the cause of the pruritus, but in our cases itching sensation was the first symptom and preceded any eruption.

The form of the eruptions differs according to the variety of dermatitis herpetiformis. In a general way, we may say, that it begins with enythematous plaques, which rise into papules, or the epidermis is filled up with serous fluid in form of vesicles and bullæ, or with purulent exudation, vesico-pustules and pustules. The texture of the skin is considerably altered; it remains infiltrated, thick, hard, highly pigmented and congested, of a brownish-violet color. In consequence of the vesicles, of the bullæ, and of the pustules, excoriations and crusts remain on the diseased skin. In the lady we found a considerable swelling and acute œdema of the eyelids and of the face when the eruption spread on that region.

The color of the erythematous plaques in the beginning is vivid, and disappears under the pressure of the finger, and has nothing to do with the brownish-violet color, which we find in the infiltrated plaques, where the eruption had its seat.

The spreading of the eruption is different in the various cases. In our first case the bullæ appeared all over in large bunches, affecting one day the genital and the gluteal region, another day the limbs and the chest, and so on until the whole body was covered with bullæ. In the second case, however, the disease spread with the greatest regularity, and the new eruption appeared on the edges, while at times relapses of pustules and vesicles occurred scattered irregularly on the old infiltrated spots.

[1] *Archiv. f. Dermatologie*, 1868.

In a recent relapse in the first case we can notice small, reddish papules, surmounted by small vesicles, of the size of a pin head, aggregated together like sudamina, spread over large regions of the body, while small pustules are scattered on the limbs. In the second case, the vesicles are no larger than a millet grain to a split pea, brilliant like pearls, disposed in circles on the edge of the spot. The vesicles are easily broken, and the slightest contact removes the epidermis in form of shreds, leaving the corium uncovered. It is remarkable that any irritation, or any pressure, is liable to bring out a new crop of vesicles. Vesicles come often on the occipital region, which rests on the pillow. Just in the middle of the breast, where the springs of the corset rub, a new plaque is now coming. Another plaque of numerous vesicles is now formed under the armpit, where the two surfaces of the skin come in contact. Vesico-bullæ are frequently developed on the tip of the fingers of the right hand, from any attempt to sew, or stick a pin, or button her clothes.

Comparing the two cases, we see that both are of long duration, but in the first we see a tendency to acuteness, while in the second we see a tendency to chronicity. In the first, in each relapse there is a stormy appearance of vesicles and bullæ, while in the second we see the vesicles slowly formed, and slowly but surely progressing.

I cannot say much about the duration of the disease. Both our patients are improving; their general health is pretty good; appetite maintained, digestion fair, bowels moved regularly. The pulse is good, the heart in normal condition; no remarkable change in the chemical constitution of the urine; the patients did not lose much of their weight, and everything shows that the principal functions are in complete order. This removes any idea of fear for the life of the patients at present. The patients of Bazin and Bulkley were permanently cured. This encourages us, and we hope for the best.

What about treatment? While I was reporting the clinical history of the cases, I told what we were administering to our patients. A great many remedies have already been tried, but all without satisfactory results. Milk diet, alkalines, purgative mineral waters, tartrate of potassium, arsenic, iodide of iron, tonics, strychnine, belladonna, atropine, quinine, cinchonidin, ergotin, tinctura cantharidis, iodide of potassium, etc.

Iodide of potassium has been already condemned. In some cases the arsenite of soda seems to have done good, especially Hutchinson claims great benefit from it. In both our cases we found arsenic of no account, if not pernicious. The extract of ergot seems to have been of some benefit in our first case, but did not seem to be of any benefit in our second case. I am actually trying, internally, ichthyol in the lady, and we can say that it has been useful, as she is somewhat better. She takes sixty drops a day in three doses.

Externally, we can say that we have applied every thing which can be found in the dermatological formulary. Unguent diachylon Hebræ, unguent zinci benzoati, unguent resorcin, aristol, oleate of bismuth, oil and carbolic acid, liniment oleo calcarium covered with cotton, baths with amylum powders, etc., but all without satisfactory results.

I must remark that every time the unguent diachylon has been applied, more vesicles have come out. It seems to me that any slight irritant agent applied on the skin has increased the fury of the disease. I must state that I am treating the lady now with ichthyol; for the face, neck and shoulders I am using gelatina zinci mollis, with 2 to 4 per cent. of ichthyol. This has calmed the burning sensation, the itching is not so intense. The papules are flattened, and no new vesicles or pustules are coming on the affected places. The raw edges covered with this gelatine do not cause pain, and in some places are healing up. I think that this paste has given me more satisfaction than any other remedy used. For the head I am using now ichthyol, aqua rosæ and glycerine, equal parts; it does not irritate; many excoriations have healed up, and I feel encouraged to keep on in its use.

In our first patient, while under the treatment of Elliot, also ichthyol has been used in association with aqua calcis and oil of sweet almonds, and the patient improved considerably.

It seems to me that ichthyol has a peculiar sedative influence upon the final nervous ramifications. In several cases of pruritus, it has stopped the itching sensation, when every other remdy had failed. In many cases of nervous eczema, especially in children, a lotion of

℞.—Ammon sulfoichthyol . . . . . ℥ij.
Aq. ros., ...
Glycerine . . . . . āā ℥ss.

has given very satisfactory results. In the lady patient referred to, where any indifferent application caused burning and eruption of new vesicles, ichthyol does not produce discomfort, diminishes the itching, and the excoriations under the dark cover of the ichthyol seem to heal up faster.

A well-regulated diet is strictly necessary in the treatment of this disease. Our patient is now on an exclusive milk diet; coffee, tea, wines and liquors are strictly forbidden.

Anything which is capable of producing erythema or urticaria, like strawberries, clams, lobsters, etc., must be avoided. Meat alimentation must be greatly reduced. The more digestible food must be selected.

The bowels must be carefully watched and regulated accordingly.

With this case we have obtained some improvement of this interesting proteiform disease, which I dare to call dermatitis herpetiformis progressiva.

REPORT OF ONE YEAR'S WORK OF INTRA-PELVIC SURGERY FOR THE RELIEF OF INFLAMMATORY DISEASES.

A SUPPLEMENT TO TEN CONSECUTIVE CASES OF ABDOMINAL SECTION FOR THE REMOVAL OF THE UTERINE APPENDAGES, FOR THE RELIEF OF PELVIC PAIN, AND THE RECURRENT ATTACKS OF PELVIC INFLAMMATION.

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I BELIEVE we can best utilize the time allotted us by a review of the work done in the past year in intra-pelvic surgery for the relief of inflammatory diseases peculiar to women. The cases here tabulated, eighteen in number, include all of the operations made for the removal of the uterine appendages by myself, taken consecutively since my report to this society last year, and are reported as a basis for thorough discussion of this important class of gynecological work. In no case was the operation made until the patient had been subjected to the best and most approved local and constitutional treatment for

many months, and, in many instances, years; and this treatment had failed. In several instances the patient, and those interested in her welfare, would not accept an operation until the case was regarded as hopeless by the attending physician. In no case, however unpromising, have I refused to operate, and all have recovered.

Considering the pathological conditions present in all of these cases, the strong adhesions to overcome, and the enfeebled condition of many of the patients, the results are all any one could ask. These results have not been attained with ease, and many of the cases gave me no small degree of anxiety for a number of days after the operations were made. I have no hesitation in saying that I could not make the report to-day unmarred by a death if I had not had the patients where I could give them careful after-treatment. It has been asserted that the after-treatment in these cases is nothing. My own experience is diametrically opposed to this assertion. As a rule, patients do not require prolonged treatment after these operations, but they require more care and attention for the first few days than other cases requiring abdominal section, except, perhaps, super-vaginal hysterectomy. Regarding the difficulties encountered in these operations, I can emphatically endorse the statement made by that eminent and brilliant young surgeon—Dr. L. S. McMurtry—in a paper read before the Southern Surgical and Gynecological Society, in November of last year. He said: "The operations upon the uterine appendages are among the most trying in the entire field of pelvic surgery. To remove pus tubes and adherent ovaries, buried in a mass of adhesions, and friable from cheesy degeneration and suppuration, is among the most severe tasks of operative surgery. Normal relations are destroyed by the exudation; the fingers must make a track to the floor of the pelvis, and blood and pus well up as the exploration and enucleation proceeds. The sight gives no aid; the work is done wholly with the two fingers deep in the pelvis."

This quotation fully coincides with my views regarding the difficulties of the operation of removal of the appendages in long standing inflammatory diseases. I am aware of the fact that these are trying times for men engaged in this special work. They have their way to make and their position to sustain against the many difficulties incident to the work, as well as against the failures of those who insist upon opening the abdomen because it is easy. We all know an uncomplicated ovariotomy is not difficult, but, on the contrary, is one of the easiest of the capital operations. But we must admit that the operation is a serious one, to be carefully performed after very careful consideration. We are to remember that very frequently what appears to be a simple and easy operation may eventuate in the most complicated condition; and this is the reason for the necessity of careful preparation and training in every detail that pertains to abdominal and pelvic surgery before the work is attempted, if one hopes to win the best result. A knowledge of the accidents that may happen is one of the best means of avoiding them. I have long since learned that before opening the abdomen no exact estimate can be made as to the gravity and extent of the complications to be met with in any given case. I am convinced that no man has a moral right to open a patient's abdomen unless he is prepared for any emergency which might occur, and is himself competent to deal with the conditions found on the spur of the moment, and in a surgical manner.

The success of abdominal and pelvic surgery is bounded and measured by the ability of the operator to overcome their many complications. In presenting this group of cases of tubo-ovarian diseases, as tabulated, you will observe that it illustrates the severest lesions met with in this kind of work. All the patients had suffered long and severely; all had suffered from peritonitis—not only once, but repeatedly. When salpingitis exists without suppuration, I do not believe, for that reason alone, an operation is justifiable until the patient has had the most approved local and constitutional treatment for many months. That this is the most judicious plan to pursue is proven by the fact that in many of these cases the patient is made more comfortable by treatment, and occasionally one gets rid of her symptoms, and is so much improved that an operation is not necessary. For these reasons all cases of chronic salpingitis should have a prolonged course of treatment before submitting them to an operation. But, after a prolonged and systematic course of treatment, if the patient continues to suffer great pain, and where the tubes, ovaries, broad ligaments, and intestines are soldered, as it were, into a single mass, an operation is indicated and justifiable, even if the existence of pus cannot be made out.

In cases 20, 25, and 27 the operations were made for the relief of these conditions. Case 20, which proved to be tubercular salpingitis, had been treated by a number of good physicians for five years. She had the benefit of a change of climate, yet she was constantly growing worse. She had three attacks of hæmoptysis within three months' time just preceding the operation. There was dullness on percussion, over the apex of the right lung, and daily exacerbation of fever for ten weeks just preceding the operation. She could not be out of bed for a whole day for many weeks, and was losing flesh and strength. She had suffered from repeated attacks of abdominal inflammation, and had constant pelvic and abdominal pain. The uterus was fixed by inflammatory exudations, and was exceedingly sensitive to pressure. It is not quite five months since the operation, and she is now in better health than she has been at any time since her illness commenced. She has gained eighteen pounds in flesh, and with it her strength has returned. I await the ultimate result with much interest.

Cases 25 and 27 were likewise chronic invalids, with constant pelvic and abdominal pains. They, like the preceding one, had suffered from repeated attacks of peritonitis. The uterus was fixed from inflammatory adhesion, and it was with the greatest difficulty that the appendages could be found and removed.

These three are the only ones in the whole series of twenty-eight that there was no pus to be found in the pelvis, yet the operations have restored them to health after all other measures had failed.

All the remaining cases had pyosalpinx excepting cases 3 and 24, which were abscess of the ovary. In many of these cases it was impossible to separate the adhesion without bursting the pus sac. In every case where this occurred, and in cases where there was much bleeding, the abdominal cavity was washed out with the gravity tube. Free washing out of the abdominal cavity need not be feared—the heat relieves the shock. I have constantly employed it, when necessary, since April 7, 1887, and have not seen a single case where it caused a single bad symptom. I irrigate until the water returns as clear as it was before it was put into the cavity. Although all

of the cases recovered, a number of them would not submit to an operation until they were *in extremis*. Let us turn for a moment to the other side of the picture. Since my report to this society last year I have seen four cases in consultation and advised an operation for the removal of pus-tubes, which was refused by the physicians in charge and the friends of the patients, because an operation involved danger to life. All of these cases died within a few weeks after the consultation. They all died from peritonitis, with every indication of a ruptured pus-tube. In but three could an autopsy be secured, and in all a ruptured pus-tube was found to be the cause of the fatal attack of peritonitis; and I have no hesitation in saying that the same condition existed in the fourth, but could not be verified because an autopsy could not be secured.

I refer to these cases to show that in cases of pus in the pelvis there is danger to life in the *so-called* conservative plan, or in the let-alone *plan* of treatment—as well as in that of operation—when, in this instance, with a mortality of less than 4 per cent., where every case presented was operated upon, except the cases mentioned which refused an operation.

In the cases refusing an operation the mortality was 100 per cent.

The following tabular reports of the two series of cases operated upon will bring out the interesting points of the individual cases:

154 WEST 8TH ST.

TABULAR REPORT OF THE TEN CONSECUTIVE CASES OF ABDOMINAL SECTION FOR THE REMOVAL OF THE UTERINE APPENDAGES, ETC. Reported to the Ohio State Medical Society, 1889.

No.	Date.	Residence.	Medical Attendant.	Pathological State.	Remarks.	Results.	Drainage.
1	Sept. 20, 1887.	Ritche, C.H., W.Va.	Chas. Scott.	Pyosalpinx.	Was confined to bed for twenty months before operation. Cure complete.	Recovery.	Yes.
2	Nov. 16, 1887.	Piketon, O.	O. C. Andre.	Pyosalpinx.	Sick for two years. Now in perfect health.	Recovery.	Yes.
3	April 30, 1888.	Frankfort, O.	Rufus B. Hall.	Abscess of ovary.	Sick for three years. Now in perfect health.	Recovery.	Yes.
4	Sept. 5, 1888.	Sparta, O.	D. P. Bliss and B. B. Scott.	Pyosalpinx.	For eighteen months before operation patient could not sit up an hour. Emaciation extreme. Septic poisoning before operation. Died on fourth day.	Death.	Yes.
5	Nov. 3, 1888.	Bainbridge, O.	W. B. Lee.	Pyosalpinx.	Now in better health than ever before.	Recovery.	Yes.
6	Nov. 22, 1888.	Cincinnati, O.	C. R. Holmes.	Pyosalpinx.	Recovery complete.	Recovery.	Yes.
7	Dec. 27, 1888.	Minster, O.	C. L. Dine.	Pyosalpinx.	Now in good health; has no pain.	Recovery.	Yes.
8	April 13, 1889.	Covington, O.	A. F. Scofield.	Pyosalpinx.	Great sufferer for years. Large pus tubes removed.	Recovery.	Yes.
9	May 6, 1889.	Cincinnati, O.	J. S. Caldwell.	Pyosalpinx.	Now in perfect health.	Recovery.	Yes.
10	May 7, 1889,	Cincinnati, O.	C. D. Fishbune.	Pyosalpinx.	Now in perfect health.	Recovery.	Yes.

SUPPLEMENTAL REPORT TO THE PRECEDING TABLE, SHOWING ONE YEAR'S WORK OF INTRA-PELVIC SURGERY FOR THE RELIEF OF INFLAMMATORY DISEASES.
Reported to the Ohio State Medical Society, June, 1890, by Rufus B. Hall, M.D.

No.	Date.	Residence.	Medical attendant.	Pathological condition.	Remarks.	Results.	Drainage.
11	June 17, 1889.	Newport, Ky.	R. B. Hall.	Pyosalpinx.	Double pyosalpinx of nine months' duration.	Recovery.	Yes.
12	Sept. 20, 1889.	Chillicothe, O.	W. A. Hall.	Pyosalpinx.	Invalid for four years. Cure complete.	Recovery.	Yes.
13	Oct. 3, 1889.	Cincinnati, O.	R. B. Hall.	Pyosalpinx.	Patient bed-ridden for thirteen months. Now in perfect health.	Recovery.	Yes.
14	Oct. 7, 1889.	Cincinnati, O.	R. B. Hall.	Pyosalpinx.	After removal of pus tubes, ventral fixation of uterus for cure of retroversion.	Recovery.	Yes
15	Oct. 17, 1889.	Chillicothe, O.	W. A. Hall.	Pyosalpinx.	Sick for three years.	Recovery.	Yes
16	Oct. 22, 1889.	Cincinnati, O.	R. B. Hall.	Pyosalpinx.	Removal of pus tubes. Ventral fixation of uterus for cure of retroversion.	Recovery.	Yes.
17	Nov. 7, 1889.	Cincinnati, O.	C. B. Van Meter.	Pyosalpinx.	Two years before had operation on lacerated cervix which gave no relief. Now in perfect health.	Recovery.	Yes.
18	Nov. 25, 1889.	Cincinnati, O.	C. B. Van Meter.	Pyosalpinx.	Sick four years. Now well.	Recovery.	Yes.
19	Nov. 27, 1889.	Cincinnati, O.	R. B. Hall.	Pyosalpinx.	A great sufferer for fourteen months. Perfect cure.	Recovery.	Yes.
20	Jan. 6, 1890.	Cincinnati, O.	R. B. Hall.	Tubercular salpingitis.	Sick for five years. Improving rapidly. Gained eighteen pounds in weight.	Recovery.	Yes.
21	Jan. 23, 1890.	Cincinnati, O.	J. A. Murphy.	Pyosalpinx.	Sick five years. Very feeble. Improving and gaining in weight.	Recovery.	Yes.
22	Feb. 19, 1890.	Coalton, O.	Wm. Drake.	Pyosalpinx.	Sick six years. Dates abdominal pain from time of forcible dilatation of cervix three years ago.	Recovery.	Yes.
23	Mch. 15, 1890.	Dayton, Ky.	W. D. Richards.	Pyosalpinx.	Invalid for two years. Cure complete.	Recovery.	Yes.
24	Mch. 19, 1890.	Chillicothe, O.	J. W. Lash.	Abscess of ovary.	Sick five years. Bed-ridden one year. Cure complete.	Recovery.	Yes.
25	Mch. 27, 1890.	Cincinnati, O.	O. P. Holt.	Chronic salpingitis and ovaritis.	An invalid six years. Appendages removed. Cure complete.	Recovery.	Yes.
26	May 7, 1890.	Cincinnati, O.	L. A. Shepard.	Pyosalpinx.	Sick for two years.	Recovery.	Yes.
27	May 24, 1890.	Cincinnati, O.	E. S. Stevens.	Chronic salpingitis and ovaritis.	Sick for two and one-half years.	Recovery.	Yes.
28	May 27, 1890.	Vinton Co.	R. B. Hall.	Pyosalpinx.	Sick for two and one-half years.	Recovery.	Yes.

Society Notes.

THE RECOGNITION OF EYE-STRAIN BY THE GENERAL PRACTITIONER.[1]

THE above was the title of a paper by EDWARD JACKSON, M.D.:—

The attempt to give relief from the symptoms of eye-strain by a careful trial, seriatim, of one's favorite sedative, tonic, and alterative prescriptions, followed by experimentation with the formulæ of great professors found floating on the surface of medical journalism, does not usually bring much comfort to the patient or credit to the doctor. And that it is so frequently persisted in until the patient deserts his so called medical adviser, and of his own notion takes his chances with the specialist or the charlatan, seems to argue an inability to recognize the connection of this group of symptoms with their cause. The worst evil of specialism is ignorance and indifference as to other departments of medicine; one of the most aggravated manifestations of this evil is the expressed indifference of so-called "general practitioners" toward the anomalies and diseases of the eye.

From time to time efforts have been made by ophthalmologists, to secure a more general recognition of

[1] Read June 25, 1890.

eye-strain on the part of the mass of the profession; but, usually, these efforts consisted in a recommendation of some special instrument or procedure of diagnosis, as, the refraction ophthalmoscope, or the shadow-test, or a set of trial lenses, reduced in size and price to the supposed needs of the mass of the profession. If it were really necessary to apply such special means of diagnosis in order to recognize the presence of eye-strain, there would be little prospect of its early general recognition. But it is frequently recognized by the patient himself, and the ophthalmic surgeon finds in the general rational symptoms quite sufficient grounds for a provisional diagnosis; and if the mind is clear from preconceived hypotheses as to the causes of the symptoms, tending to divert attention from their real origin, there is no reason why any one respectably qualified for general practice of medicine should not be able to make a provisional diagnosis with sufficient certainty to serve for the basis of further investigation and treatment, in the great majority of cases, without resort to any special method of examination whatever. Of course, the ophthalmoscopic evidence of ametropia, when it can be obtained, is very valuable as confirming such a diagnosis; and I do not under estimate the value of the ophthalmoscope to the general practitioner, for I cannot regard any one who is unable to use the ophthalmoscope as properly qualified for general practice. But I do say that inability to measure refraction with the ophthalmoscope is no reason for failing to recognize eye-strain.

The patient suffering from eye-strain comes with a certain history and certain complaints, which, carefully considered by the light of a very moderate knowledge of the subject, clearly indicate the cause of the trouble, in the great majority of cases. The symptoms in question may be considered separately.

Impairment of vision, either quite temporary, more prolonged, or quite permanent. A very characteristic form of temporary impairment of vision is that due to sudden relaxation of the accommodation. This occurs when the ciliary muscle has long been overtaxed, and especially in the latter hours of the day, when it is nearly tired out. The patient notices that the print or other near object on which the attention is fixed suddenly becomes entirely blurred, compelling the cessation of the eye-work. After a moment, however, the power of again focusing the object returns, and work can be resumed. The patient is apt to close his eyes for an instant, and, perhaps, rub them, and on again opening finds the sight again restored. If the eye-work is continued, the failure of accommodation recurs, to again rapidly pass away; and keeping on with the eye-work, these periods of inability to see become more and more frequent, until, finally, they greatly interfere with the continuance of the work, or quite prevent it. This form of impairment affects only the vision for near work.

Another temporary impairment is that due to spasm of the accommodation; it affects distant vision only, and is noticed chiefly by those whose distant vision is otherwise pretty good. It comes on after prolonged straining of the eye, usually for near vision, and lasts until the eye has gotten well rested. It is a valuable danger-signal, and should secure cessation from the work causing it until it has given place to normal relaxation. Permanent impairment of vision is brought about when eye-strain causes myopia or decided permanent damage of the choroid and retina.

Headache and Aching of the Eyes. — Eye-strain should be the first thought suggested by any complaint of headache, for in our day and civilization it is by far the most common cause of that symptom. It enters as a factor into the causation of nearly all headaches not due to pyrexia, toxemia, or diseases of the brain or its membranes. The simple existence of headache, therefore, should suggest eye-strain; but frequently a careful inquiry as to the manner and time of occurrence of the attack, and the location of the severest pain, will be almost conclusive as to the origin of the trouble.

Often it comes on whenever the eyes are used, and is absent when they have had a proper period of rest. The occasions of most severe requirement in the direction of eye-work are the doing of anything requiring accurate near vision, taxing both the accommodation and the convergence; or traveling, shopping, attendance at public gatherings, which entail more use of the eyes than the patient is at the time conscious of, and often under unfavorable conditions.

Very often the chronological connection between the use of the eye and the occurrence of the ache, although perfectly certain and evident when once it has been observed, has never been noted by the patient until his attention has been directly called to it. Even when the headache seems constant and quite uninfluenced by variations in the amount of eye-work, it may be due wholly to eye-strain.

In hyperopia in young people the accommodation is in excessive use so long as the eyes are open and the attention fixed on any visible object; and hyperopia is the most common cause of constant headache. The writer was formerly subject to a constant headache whenever confined to the house, and regarded it as caused by breathing vitiated air, until it was quite cured by the correction of his hyperopic astigmatism. Many persons have the same idea as to the causation of the headaches they always experience when attending the theater or other place of public amusement, and which are really due to eye-strain. Others ascribe these headaches, and those experienced in traveling or shopping, to exhaustion. This is nearer the truth, only they commonly have in mind a condition of general exhaustion, whereas it is largely one of local exhaustion of the special nervous apparatus concerned in the act of seeing.

The *location of the aching* is of some significance. Generally it is frontal, often described as beginning in the eye, or just back of the eye, or through the temples. Frequently it extends to the occipital region, and may sometimes be felt principally or wholly in that region. Headache most severe in the vertex or confined to that region is probably not very common from any cause, but from eye-strain it is almost unknown. Often the headache is more severe on one side of the head than the other. Sometimes it is entirely confined to one side, but usually it is bilateral.

Those more or less regularly periodical headaches, known as nervous or sick headache, migraine, or, when confined to one side of the head, hemicrania, are in many cases set up by eye strain and relieved by its removal. Attacks of this kind are frequently ushered in by certain interference with vision and subjective sensations of light, affecting a part or the whole of the visual field, and known as ophthalmic migraine. These visual disturbances are simply a part of the general "nerve-storm," and it is not certain that they especially indicate the origin of the attacks to have been eye-strain.

Congestion, irritability, or inflammation of the eyes and their appendages should always suggest the suspicion of eye-strain. A single attack, or manifestation of this kind has no especial significance, but

repeated attacks of inflammation, or prolonged congestion, or irritability, are exceedingly suggestive of a continuing cause; and the most common of these is the one now under discussion. No case of chronic inflammation of the margins of the lids, or of recurring conjunctivitis, or repeated styes, has justice done to it until it has been carefully investigated for eye-strain. Persons at the period when they begin to feel the effects of loss of accommodation in presbyopia or absolute hyperopia, suffer from repeated attacks of conjunctivitis, which they commonly ascribe to "taking cold in the eye," but which are cut short by use of the appropriate lenses, and which, if unchecked, would tend to establish a chronic catarrhal condition, which is a chief discomfort in the lives of many elderly people.

Of course, these conditions of ocular congestion and inflammation will be recognized by the usual symptoms of redness, swelling, and itching, smarting, or burning pain. They often require especial local treatment, and will quite often be temporarily cured by this alone; but if the underlying cause is not removed, they show a strong tendency to recur indefinitely, or until the accommodation is so far lost that the temptation to strain it is removed. It should be noted that usually headache and these local inflammatory conditions are not presented by the same case. They may co-exist, but, more commonly, if one is decidedly present, the other is absent.

So far nothing has been mentioned for the diagnosis of eye-strain, but the facts ascertained by questioning the patient, and from simple inspection of the eye. If, now, the physician's office contains—what every general practitioner's office should contain—a card of test letters for accurately ascertaining the distant vision, and a card of fine print for ascertaining the near point of the eye, additional valuable evidence is easily obtainable. The trial of the distant vision will give indication of any considerable degree of myopia or astigmatism. But it must always be borne in mind that troublesome ametropia may be present without preventing perfect distant vision. The position of the near point, if farther from the patient's eye than his age would indicate, is pretty good evidence of strain of the accommodation. Evidence of strain of the external muscles of the eye, heterophoria, can be obtained by simply getting the patient to keep his eyes fixed on some object, near or distant, and covering one eye; then noting whether the covered eye deviates from its position of fixation, and especially whether it makes a quick movement to return to that position when it is uncovered.

Briefly to recapitulate, the common symptoms of eye-strains are:

Certain forms of impairment of vision.

Headache, which is to be studied with reference to the times of its occurrence and the parts of the head to which the aching is referred, with careful discrimination between the patient's facts and his theoretical explanation of them.

Chronic or repeatedly recurring congestion, or inflammation of the eye, or its appendages.

And if to these symptoms are added the results of the simple tests of near and distant vision, and evidence of tendency of the eyes to deviate from their normal position when covered, a very good basis is furnished for the probable or provisional diagnosis of eye-strain, without recourse to any special apparatus or unusual diagnostic procedure. And in view of these facts there is no justification for the general practitioner who fails to recognize most of the numerous cases of eye strain with which he is brought in contact.

Discussion.—Dr. George M. Gould: Certainly, nothing Dr. Jackson has advanced in his excellent paper calls forth controversy or criticism; but I think a word may be added as to certain other symptoms not alluded to by him, that may sometimes put the general practitioner on the track of an eye-strain reflex. When eye strain is sufficiently severe to set up a reflex neurosis, sleepiness is a common symptom brought on by persistent reading or writing. The patient cannot understand why he grows so drowsy. A more important trouble is one I at first advanced somewhat doubtfully, but now I am growing perfectly convinced is a genuine result of ametropia. I allude to troubles of appetite and digestion. Few patients with severe or long continued eye-strain that do not complain of anorexia, fickle appetite, or some dyspeptic trouble. Mothers frequently call such girls "pickers." Explain the mechanism of this reflex as we may, I am sure it is a fact, and that a malnutrition often results that may end in anæmia and many different form of nervous abnormality. I have had a large number of such patients regain long lost appetite after putting on glasses, and regain ten to twenty pounds of flesh within a month or two. Nervousness and choreic movements, even genuine choreas, are traceable sometimes to the same causes. I had one patient who wore the right shoe out in a few weeks, and who had a habit of bursting out crying or into a rage at a trifle. She had been treated for chorea for years at one of our best hospitals. All symptoms have dissappeared for two years upon correction of her hyperopic astigmatism. I could cite several other cases

I should like, also, to call attention to car sickness in connection with eye-strain. I have had eight or nine cases of this kind, and by glasses all have been relieved of the car-sickness. One case was that of a gentleman who every journey had car sickness. While he had the mydriatic in his eyes he went to Washington, and suffered no inconvenience whatever. Subsequently, after he had glasses, he made a trip to St. Paul without any of the former trouble. In the last two days I have two cases—one that of a girl who could not ride a short distance in the street cars without vomiting. I found a decided degree of hypermetropic astigmatism. With the mydriatic in her eyes she rode home without her usual trouble.

A strange thing with reference to eye-strain is, that it often exists to an exceptional degree without showing any symptoms in the eye. The patient will often say that the eyes are perfectly good and have never caused any irritation. The reflexes seem to settle in some other place. This is an interesting pathological and physiological question.

With reference to testing the eye by the general practitioner, it has struck me that a simple plan, which could be readily carried out, would be as follows: Have two test-cards, so that the patient will not learn and remember the letters. Let him first test distant vision with one of the test-cards; then let him instil homatropine. This will give perfect paralysis in three-quarters of an hour. Then retest with the other card. Then, if vision has decreased, there is eye-strain, due to astigmatism or hypermetropia. Another practical point is that, if the patient is suffering with headache, he will be relieved by the application of the mydriatic. It is to the existence of hyperopia and astigmatism that we want to know. Myopia rarely produces eye-strain.

Dr. Mary E. Allen: I would ask if, in these cases, the condition of the recti muscles has not something to do with the symptoms. In my own case, I

suffered eye-strain for a long time, and insufficiency of the recti muscles. I had one symptom which I have never seen described, and that is, a feeling as though a blow had been struck against the eye. My explanation of this is that, by a spasmodic contraction of the straight muscles, the elastic eye ball is suddenly drawn with force against the back of the orbit, giving the sensation of a blow. I had this a long time before wearing glasses, but very seldom since.

DR. JACKSON: My paper simply refers to the *recognition* of eye-strain. I purposely considered only those symptoms most generally present, and had in mind the great mass of cases, not the exceptional ones, which do, in the aggregate, constitute a very large number, but still are proportionately few. The other symptoms which have been mentioned, and many others, might be referred to as due to eye-strain, but they do not occur in the large number of cases, and can hardly be regarded as of general importance in making the probable diagnosis.

I have used the term eye-strain, not as a synonym of ametropia, because we may have ametropia without eye-strain, or eye-strain without ametropia, if requirements are put upon the eye too great for its capacity. You can have it without any ametropia or weakness of any extra-ocular muscle or group of muscles. It is to the question of eye-strain as isolated and separated from ametropia that I refer. Of course, in a very large proportion of cases, the relief of the eye-strain comes from correction of the ametropia.

In connection with that correction, I should like to say one thing with reference to a remark made by Dr. Gould—that is, if myopia were present, it need not be considered. In my experience, myopia may cause severe eye-strain. There is the strain of convergence, and any inequality between the two eyes in the amount of myopia—and myopia is usually unequal—is very likely to cause eye strain. The discovery of myopia would not, to my mind, rule out the existence of eye-strain.

The Polyclinic.

MEDICO-CHIRURGICAL HOSPITAL.

IODOL.

IN a case of chronic diarrhœa of the nervous type, of many years' standing, it was found that whenever the diarrhœa was worst fissures of the anus were present, and an appearance which I have never seen described in connection with the anus, but exactly like one which Matthews Duncan found in the vagina. There is a red spot—not an ulcer—exquisitely sensitive, which appears to consist of the vessels and nerves, the other elements of the tissues having been atrophied. Duncan found no cure for this; even when the spot was excised a similar one soon appeared in the vicinity. Temporary relief was obtained by the application of pure carbolic acid.

In the present case, iodol was applied, in an ointment of one part to sixteen. Immediate relief ensued, and, whenever any indication of a return was manifested, it was promptly checked by the iodol. The net result has been that this summer has been freer from the diarrhœa than any for a number of years.—*Waugh.*

EXOPHTHALMIC GOITRE.—The therapeutic agents that have by common consent proved the most serviceable in the management of this affection are: Galvanism, digitalis, ergot, iron, bromides, and nerve tonics, such as arsenic, phosphorus and zinc.

All writers seem to argue that, of these agents, Galvanism is the most valuable, but there is no uniformity in the directions as to the method of applying it. I have, from my experience, some reason for testifying to its efficacy, yet I think it quite important that the reverse current be used, and that it be passed as nearly as possible through the irritated nerves, with a view of producing a sedative action upon them and the nerve centre in the cord from which they originate. I have never used a stronger current than twenty volts.

As to the medical agents mentioned, they are to be employed according to the indications in each case, and their tolerance by the patient. I have found in some cases a combination of belladonna with digitalis and nux vomica, of marked benefit in controlling the rapid action of the heart, but the correction of indigestion and sleeplessness is of primary importance in conserving the patient's energy, which is, otherwise, in most cases rapidly dissipated.—Herdman, *in Med. Age.*

SCARLET FEVER, MEASLES, AND DIPHTHERIA RUNNING TOGETHER IN THE SAME INDIVIDUAL.—E. W——, aged four years and a half, was admitted into the Derbyshire General Infirmary under Dr. Greaves on March 29, 1890, suffering from scarlet fever. She had a typical rash, with sore throat and tongue. Temperature 103.2°. The fever ran an ordinary course, and on April 9th she was peeling generally, the throat being still somewhat swollen, and the glands of the neck enlarged. On April 10th, twelve days after admission, the child began to sicken again, and complained of headache; the temperature began to rise, and there was marked coryza. On the 11th she had a rigor (temperature 105.4°), and the following morning presented a well-marked measly eruption over the face, neck, and wrists.—April 13th: Rash disappearing; temperature falling; child seems better; throat still inflamed.—14th: Temperature 104°; patches of membrane seen on both tonsils.—15th: Membrane on soft palate, removal of which causes bleeding; much difficulty in deglutition, and also in respiration; symptoms of laryngitis appearing.—17th: Respiration still difficult; quantity of muco-purulent discharge from nose; throat less inflamed.—23d: Child seems better; takes nourishment well; tongue cleaner; ulcers on the tonsils, but no membrane to be seen; respiration much easier; pulse fairly good.—24th: Has had two slight attacks of syncope while sitting up to be fed; seems unable to swallow in the recumbent position.—25th; The child, after awaking from a short sleep, was rather restless, had another fainting attack, and died.

Remarks.—When the membrane first appeared on the tonsils we were doubtful as to its nature, and inclined to look upon it as merely an aphthous condition arising in the course of a specific fever; but from the way in which it spread to the larynx and nasal cavities, and the subsequent development of the general symptoms, we were induced to look upon it as a case of diphtheria, and to treat it accordingly. It is not uncommon for measles to supervene during an attack of scarlet fever, or for diphtheria to attack a patient suffering from eitner measles or scarlet fever, but the occurrence of the three together is, I think, of such rarity as to be worthy of recording.

—Taylor, in *The Lancet.*

The Times and Register

A Weekly Journal of Medicine and Surgery.

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WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

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ADDRESS ON MEDICINE BEFORE THE BRITISH MEDICAL ASSOCIATION.

LAST week we laid before our readers the Address in Surgery, delivered by Lawson Tait. The intensely practical nature of the man shows forth in every line; food for thought is to be found in every pointed sentence. The defects of our clumsily ineffective methods of preparing the student for his future work as a physician are graphically portrayed. The dolt who discourses on high science to a laborer's wife in her agony, instead of attending to her needs, can be found without crossing the Atlantic. It has even been whispered that the graduates of a certain university, that will here be nameless, talk learnedly upon the circulation of batrachians, and are not very skilful in the treatment of scabies. But the part of Mr. Tait's address which gives most pleasure is that in which he speaks so courteously of Sir Spencer Wells. As Mr. Tait grows older he loses something of the acerbity of his earlier years; he can recognize the good that has resulted from the labors of his enemies; and, by doing so, he lifts himself to a higher place in the estimation of his friends. There is also a noticeable absence of rancor in his remarks upon Apostoli and his methods. Altogether, it has been long since we have perused an address with as much pleasure as that of Mr. Tait.

We regret that our space is too limited to admit of the reproduction of the other addresses. In that upon medicine, Foster dwelt upon the achievements of the experimental method in bacteriology and organic chemistry. The story of the microscope has nowhere been told better. Schwann connected fermentation with yeast-cell multiplication; the association of micro-organisms with putrefaction came next; the doctrine of a living cause of specific disease received fresh support, and Pasteur's vitalistic theory of fermentation led Lister to his triumphs. Nægeli's experiments dislodged the great chemical champion, Liebig, from a series of positions he had defended with the greatest skill. Half a century before, Henle had foreshadowed the connection of infective diseases with micro-organisms; and, in 1849, Budd declared his belief that cholera and typhoid fever depended on living organisms. Like many an ardent student, he longed for and foresaw the day when, in connection with zymotic diseases, the initial phenomenon of the morbid series would be isolated and defined. Pollender's discovery of the anthrax bacillus, and its study by Davaine, etc., opened the new field of study. New methods of investigation, new arts of studying the life history and morphology of bacteria, by cultivating them in nutrient media, were devised; and inoculation revealed new and startling facts as to the virulence of micro-organisms and the modifications by which they are rendered protective. Pasteur, at last, found parallels to Jenner's discovery, in chicken-cholera, anthrax, and hydrophobia. There is a law, widely applicable to pathogenic organisms, that their own products become in time destructive to themselves. The saturation of the system with the products of the microbe stops its multiplication and renders it inert. Hence, inoculations of the product tend to prevent the development in the body of the original microbe. Looking closely at this theory, we get a side-light of startling suggestiveness as to the true foundation of the old idea of the *vis medicatrix naturæ;* as in the modified intensity of virus produced by culture we see the origin of the theory of the change in the type of disease.

The chemists are now at work upon their part of the investigation; and have already isolated virulent compounds from putrefactive substances. In some septic diseases, toxic products are probably generated by the metabolism between the bacteria and the bodily tissues. Some researches indicate that a bacillus always produces the same poison, and that this causes the graver symptoms, as in diphtheria. The position now reached is, that in some diseases, as anthrax and relapsing fever, we know a specific micro-organism to be the contagium; in a second group, as tubercle and cholera, the evidence is nearly complete; in a third, the matter is still *sub judice*.

The lesson that these results teach us is that experiment and comparison have vastly changed our notions of disease, by substituting actual demonstrations of morbid processes for vague speculations. We no longer refer an epidemic to the anger of the gods, or to some intangible emanation, but we find its cause with the microscope and the culture flask. We identify and isolate the microbe, and that done, or even before it is done, we learn by experiments to modify and master its effects. "Shutting out fear with all the strength of hope," experimental medicine aims at discovering and controlling the starting-point of each infectious malady. In every instance in which that is accomplished, the arts of prevention and cure hasten forward with hurrying feet, but with by no means equal steps. Bacteriology gives, in the first place, the strongest impulse to preventive medicine, by defining the causes, and in many cases giving the power to control and modify at will the initial phenomena of each morbid series. With these revelations of the nature of pathological processes; with these disclosures of the causes of disease; with these demonstrations of what I may call the mechanism of maladies, is it any wonder that the attitude of the profession to disease is vastly changed?

The mystery that awed and paralyzed us in so many cases thirty years ago, has yielded its secret to patient study, and, confident in the new knowledge, we hail

> The teeming future
> Glorious with visions of a full success.

These revelations of the causes of illness favor the success of collective efforts at prevention; and, hence, the State has more willingly legislated for this object. While medicine was a slave to theology or metaphysics, little progress could be made. The shafts of Apollo formed as hopeless an explanation of an epidemic as the possession by evil spirits. Such ideas gave nothing definite to aim at. The identification of the contagia, their modes of communication, and the means of checking their spread, allow the formulation of rules for collective action against the common foe.

The speaker went on to sketch the progress of legislative sanitation in Great Britain during the reign of the present Queen. He paid a pleasing tribute to Birmingham, noting the title of "the best-governed city in the world," applied to it by a recent American visitor, and closed with the following, which smacks of Bellamy:

Go and see, I ask you, how Birmingham takes care of its fifteen hundred sick poor, and you will, I am sure, appreciate the wise benevolence that has raised this great medical monument of Christian charity. There is, to my mind, only one defect: every one who is admitted is forced to become a pauper. I hope one day sickness and suffering will be sufficient passport, and that the benevolence which proffers the relief will not mar the sweetness of the gift by a condition which embitters its receipt. When that day comes, and the collective provision for the sick is made a public duty, many hospital abuses will be cured by the municipalization of our charities. The isolation of infectious cases has already been put upon the rates without entailing pauperism, and our City Hospital contains some four hundred beds. Thus these two rate-aided hospitals receive some two thousand patients, or between three and four times as many as are maintained in voluntary hospitals. In London a similar condition exists, for there nearly two-thirds of the eighteen thousand in-patients are supported from public funds.

Some of you may say I began this address with philosophy and I end it at a workhouse—a goal which philosophy sometimes attains. I accept the criticism. It states a truth and conveys a lesson. It is that lesson which I wish to impress upon my professional brethren—the immeasurable importance of even their highest scientific work to the well-being of the poor, and through that to the stability and prosperity of the State. We have in our ranks some four thousand five hundred poor-law medical officers, who are the daily bearers of succor to suffering thousands, and in many cases the only visible link between the powerful State and the homeless and hopeless poor. In the daily work of these four thousand five hundred doctors there reside greater potentialities for social progress than in any other class. To them is given the highest function committed to us by the Highest—the care of the suffering poor—and in the daily discharge of that holy task, the vast hecatomb of human misery that civilization piles up may be diminished and prevented. If it is not so prevented, decay will come upon us as a nation; for never yet have strength and stability been found in hoarded wealth, but only in the content and comfort of the poorest classes of the population. I want every parish surgeon, every practitioner among the poor—and thank God we all have poor patients—and every medical officer of health, to realize the nobility of the service he gives the State; and one day, I hope no distant day, the State will awaken to the value of such service, and recognize in the trusty dispenser of a nation's charity, or the wise saviour of a city's health, servants of the State more worthy of its honors than the successful soldier, or the astute diplomatist.

But come this higher hierarchy of worldly honor soon or late, to men who do their duty in our ranks, there will come one day the grandest words of welcome and reward, "Well done, thou good and faithful servant; enter thou into the joy of thy Lord."

Annotations.

MATÈ.

CHARLES, in the *British Medical Journal*, contributes the results of an investigation of matè, or Paraguay tea. The proportion of caffein in this he found to be 0.79 per cent., as compared with 1.2 per cent. in coffee and 3.1 in tea. The per centage of tannic acid was 21.9; 5.8; and 22.7 respectively. Matè has the effect of increasing peristalsis; it also acts as a diuretic; but neither action is sufficient to interfere with its use by persons in health. In two cases where Charles induced old ladies to substitute matè for tea the effect was beneficial; their headaches ceased, and after a year they were quite contented with their substitute for the "cup that cheers." There are many cases in which neither tea, coffee nor cocoa are advisable and agreeable also; and it would seem as if there is room for the introduction of matè as a popular beverage in this country.

COMMENTING on the interest shown by the electric light people in condemning execution by electricity, the *Scientific American* says:

"We have only to say, if they are not satisfied with the electrical apparatus used at Auburn, if, as they claim, it is not effective, then let us employ the deadly devices which the complainants themselves use, own, and control, with which they fill our streets and slay our innocent citizens. Let them bring the culprit to our city prison, place him on a conducting floor, introduce one of their street light wires, and with it, at the moment of execution, touch the hands of the prisoner. It will extinguish life instantly. It has rarely been known to fail."

We fear that in their eagerness to discredit electrical execution these gentlemen are proving too much. If Kemmler's death was so frightfully painful, if he were "tortured to death," this furnishes an excellent reason for recalling the charters of the electric light

companies, and compelling them to suspend operations until they can devise methods by which the public will be protected. Sympathy with the brutal murderer is all very well, but how about the innocent victim who happens to touch the tip of a telephone wire, that has somewhere crossed an electric light wire, and is "pounded to death?" Be careful, gentlemen, or you will be "hoist by your own petard."

HEMIPLEGIC EPILEPSY.

THE difficulties that still beset the path of cerebral surgery are exemplified by a case related by Abbe, before the New York Surgical Society (*N. Y. Med. Jour.*) The patient, a man aged forty-four, had a mitral murmur; no paralyses, no deviation of tongue, no anesthesia, pupils reacted to light, knee-jerk absent; the other reflexes present, the plantar exaggerated. There was a purulent discharge from the left ear, with perforation of the drum. Skin dry, tongue brown but moist; pulse 80, temperature normal. The man was somnolent. An hour after admission he had convulsive movements of the right side, beginning in the foot. Next morning he had a limp. After breakfast another convulsion of the right leg, followed by transient paresis and hyperesthesia. The urine was acid, s. g. 1,042, with no albumen or casts, but 32 grains of sugar to the ounce. During the following week the urine increased from 40 ounces to 86; several attacks of anesthesia of the right arm and leg occurred daily, with loss of power. He could stand but could not walk. No optic symptoms. Hesitancy in speech and difficulty in pronunciation. Mind dull, memory good. The convulsions recurred several times daily, with more pronounced aphasia, and extended to the face (right side). Temperature 101° F., and evidences of mastoid suppuration. It was thought possible that there might be pressure upon the centers for the leg, arm, face and for speech, from perforation and extension of the suppuration. The mastoid was opened, and a loose requestrum removed. The convulsive twitching continued, and on the third day following, the indication of irritation of the cortex being pronounced, with slow pulse, wholly localized convulsions and more complete aphasia, it was decided to trephine in front of the lower end of the Rolandic fissure. No gross lesions were found either at this time, or at the autopsy, five days later.

The conclusion was that this train of remarkably delusive symptoms resulted from the diabetic toxemia; the mastoiditis determining the irritation of the left convolutions.

Letters to the Editor.

ELECTRIC SHOCK.

WM. R., male, white, aged twenty-one years; an employé of the U. S. Electric Co.; while fixing the carbons received a shock of 2,000 volts; the current entering through a hole in his rubber glove at the second phalanx of the middle finger of the right hand and passing out through the left forearm, charring the flesh at both places. The current lasted only three or four seconds. In describing the sensation he said there was no pain, but he felt as if he were violently shaken, and then lost consciousness. He was unconscious about five or six minutes. He then walked to the Emergency Hospital, where the burns were dressed. Said he felt all right, and was going to work the rest of the night. For several days he felt sore all over his body, as if he had been taking violent muscular exercises, but not enough to stop him from work.

R. M. ELLYSON, M.D.,
Resident Physician.

EMERGENCY HOSPITAL, WASHINGTON, D. C.

THE CATSKILLS.

ALTHOUGH I am up here in the clouds I do not forget my earthly friends. It seems queer how people seek for health, under the earth or in the clouds. I was led to this thought by reflecting on the memory of a dark, gloomy abode in the Mammoth Cave, which I was assured by my guide had been occupied by a number of people for months in the hope of a cure for phthisis. Up here the sight of the heavens, apparently so near, the beautiful valley of the Hudson extending in all its grandeur about three thousand feet below, is enough to inspire feelings of elation as we drink in the pure air untainted with the vile odors of the swill cart, odorless excavators and the host of air polluters of the city. One thing has astonished me. The thought of how many cross the ocean in hunt of grand scenery, when here, only two hundred miles from Philadelphia, a few hours' ride, they can enjoy the grandest views of mountains, valleys, water falls, ravines, etc., and drives or rambles o'er hill and dale, all conducing to health and happiness. Or, if desired, rest, while drinking in the wonderful scenery lying at their feet seated on the grand porch of the hotel. In all my travels, I have nowhere met with hotel life more comfortable, or scenery to surpass the outlook from every portion of the mountain upon which this hotel is built.

WM. B. ATKINSON, M.D.

HOTEL KAATERSKILL, N. Y.

Paris Letter.

JEALOUS INSANITY.

PROF. BALL, who holds the chair of Mental Medicine at the Faculty of Paris, gives some interesting clinics at the St. Anne public asylum.

Dr. Ball is of English descent, although of French birth. It is rather curious to note the extraction of some of the greatest men France has had. Notwithstanding that the French are strongly prejudiced in favor of Frenchmen, still quite a number of men of foreign parentage reach the best possible places. In the Paris Faculty of Medicine there are several instances besides that of Prof. Ball. The late lamented Prof. Damaschino and the present Prof. Panas are of Greek extraction. But, to return to our subject—

It is usual to look upon jealousy as a partial and harmless form of delirium; but it is, nevertheless, in certain forms, a fixed pathological state, which should be known and studied by all physicians who wish to understand mental medical facts. The insanity that it sometimes leads to cannot be taken for the more or less natural exaggeration of a natural instinct.

Dr. Ball, first of all, attempts to define jealousy. He says it is a "general inclination (like envy, and founded, like it, also on egotism) that makes certain persons demand the first place in everything, and get angry at any preference shown to others." This may be shown for various matters; but the usual case, and the one studied here, is jealousy through love. This is generally thought to carry its justifi-

cation in itself, because it is supposed to be shown by an excess of tender sentiment and love.

This is a profound error; although a general belief among the public, and accounting for the verdict of acquittal so often given by juries in such cases. But, in reality, real jealousy is a sentiment that is profoundly egotistical; the jealous person is much more hurt in his or her self-appreciation than in his or her affection. The true type of jealousy was immortalized by Beaumarchais, in his character of the Count Almaviva in the "Barber of Sevilla," who makes love to all the women he meets, but gets furiously jealous if any one speaks to his Rosine. Many jealous insane persons have been known to kill the object of their so-called affections rather than that the preference should belong to a rival.

Dr. Ball presented two patients to show his ideas. The first was a woman of forty-six, who was rather good-looking: but, from her age, one would have thought had passed the age of jealous insanity; but it may well be that it was just that that brought it about. Up to the menopause, which had come on in October last, she was reasonable, or at least had contained within reasonable limits her malady. She had been a cook in the best families, while her husband had been a valet; they both ate and drank well, and she was somewhat alcoholic; added to this, the fact that her husband had been foolish enough to relate to her some of his youthful follies, and also some of those of his master's. This put the woman into the first stage of excitation, and led to her following her husband wherever he went. She fell into the grave mental state called by Prof. Ball "obsession," which gets such a mastery over jealous women that all their thoughts and acts are directed to a single object. She harassed the husband so much that he at last killed himself. And just here is an important symptom. Notwithstanding that she says she loved her husband, she don't really regret him, as she is gay and quite indifferent about his death. This sort of indifference is quite characteristic of insane patients of all kinds; anything that is outside of the fixed idea on which they are deranged does not affect them. Her only idea at present is that her husband can no longer be unfaithful to her; so much is this so that she will soon be cured; above all, as she cannot get alcohol here.

This case of jealous insanity was, as we have said, of alcoholic origin. Jealousy, indeed, is only a form of delirium.

The second case is quite different. It is a woman who does not care for her husband at all, and who only sees herself in the world. She was a spoiled child, allowed by her parents everything. She soon became accustomed to see only her own ideas in everything.

After her marriage, to a good husband, she soon made him suffer, as during her second pregnancy she was taken with jealous insanity. Her husband was employed in a government office, but she could not remain at home and take care of her daughter, but must run constantly after him, just as she was, without a care about her dress; with her old kitchen apron on. She would remain for hours outside his office. When he would come out she would scream out that he had been with the female porter of the house, that he disgraced her, etc., etc.

After many scenes of this kind the husband saw a doctor, and she was finally brought here, where her bad character makes her jealous of everybody. She cries, and beats the other poor, simple idiots, and will throw handfuls of pepper into their soup. She says she hears voices, who tell her that her husband is unfaithful with all sorts of impossible people—the charcoal woman, etc. She constantly refuses to eat, to attract pity from the attendants and public; says she will not bathe, as the baths are used by dirty people. She is, in fact, completely insane. This, then, is a complete and incurable form of jealous insanity.

Jealousy, then, will produce crime, murder, suicides, and serious persecution. The journals are often full of crimes through its influence.

M. Moreau, of Tours, proposes this classification of such cases:

Class 1.	Slight jealous insanity	—	Spiteful, worry, making scenes.
" 2.	" "	"	—Rows, violence, menace of homicide, but not carried out.
" 3.	Violent "	"	—Murder.
" 4.	" "	"	—Suicide.
" 5.	" "	"	—Murder and suicide.

Prof. Ball, however, thinks the great point is whether the jealous patient is mad or not, and gives two classes:

1. Simple jealousy.
2. Jealous insanity, with or without hallucinations.

Mothers have been known to kill their children and then themselves under jealous insanity. Is this the first or second class? It is sometimes difficult to say; but what is certain is that such persons are a public danger, and they should be sequestrated. To kill a husband through jealous passion can sometimes be explained by simple jealousy; but to kill her own children, never! It then becomes madness. This has been known since the ancients. Euripides tells of the jealous fury of Medea, who killed her children when she was abandoned by Jason. But the moment maternal sentiment gives way to jealousy, there is evidently a real mental malady and madness. The causes of this disease are various—heredity is an important one, education is another; a single child, also, as they are so often spoiled. Accustomed to have their every wish gratified, they are apt to consider themselves the pivot on which the world turns. Sex is important, woman being more jealous than man. But some men are jealous tyrants. Certain accidents, wounds of the head, etc., as well as diseases, such as serious fevers, can provoke this state; but above all alcoholism is the most frequent cause, with the menopause.

Jealous insanity is, therefore, a real malady, and needs our intervention. It can be cured sometimes, as our first evil shows, and the best means is to calm them by repose and sequestration. They must be taken away from their friends and their false impulses broken; and, like all undisciplined people, they must be taught reason. In this way the army is a good place to send young men. To know that one is dominated by the will of others is often a good thing, so that an asylum has here its best uses. Purgatives are important. It is curious that constipation has a bad influence over our thoughts; besides this tonics, baths, opium and bromides calm, in fact, the intensity of the attack, and reasonable beings can be returned to society who otherwise may cause difficulties that may leave serious and important consequences, both in a social and medico legal point of view.

NEW TREATMENT FOR CHOLERA.

The presence of this disease on the Spanish frontier, and in other parts of the world, with its difficult treatment, induces us to mention the fact that M.

Roux has communicated to the Societe des Sciences Medicale de Lyon, some studies he has made on Koch's bacillus, with different culture liquids. It seems that one of these last fluids was made from the residue of germinated barley, and that it is impossible to cultivate the cholera micro-organism in soups, made of the refuse of malt houses in 5 to 10 per cent. strength. It would seem, then, that a decoction of this stuff ought to be a good cholera medicine, and it will be a new use for it, instead of giving it to the animals to fatten them. The question will be to make it palatable or to inject it into the rectum. As most of the antiseptics that kill the cholera microbe are dangerous, it is certainly a happy idea to find some substance that will destroy the bacillus and not the patient, so that the above soup, even if nasty, cannot be harmful, and our druggists had better study the best means to get it into the bowels in sufficient quantity to overcome the cholera micro organism, if it is the real cause of the disease, which may be among us this year.

ANILINE COLORS IN THERAPEUTICS.

These pretty colors, which have been so long used in bacteriological work, have just now taken a new turn, and seem to be useful in the drugging branch of medicine. In place of showing up the microbes under the microscope, it is now hoped that they will arrest their development.

This idea *a priori* seems natural enough. Kriemarski spoke of it first in tuberculosis, and Prof. Stilling, of Strasburg, gives some results of its use that are at least encouraging. Quite a number of German authors have written on the subject, some quite in favor, while others still sceptical. The colors used have been the methyl violet and auramine, or yellow, which have been first carefully cleansed of carbolic acid, and arsenic. These colors thus prepared, have been called *Pyoctanine* (to destroy pus), but the name is not yet, at least, justified.

Injections made into animals, by many authors, prove that these colors are not toxic, that they possess a strong diffusive power; do not coagulate albuminates, and their antiseptic power is almost equal to corrosive sublimate. These colors are employed to cover wounds, ulcers, etc., until they crust over, and this is allowed to remain until it falls. They are also made into pencils for use in eye troubles, as well as in pomades. In solution they should be carefully filtered and kept from the light. The strength is from 1 to 10 per cent. Stilling, Peterson, and other eye surgeons are using these preparations with success. The same may be said of the nose and throat specialists. Many others are making subcutaneous injections in various painful rheumatic and other affections, so that the use of these substances is pretty certain to extend.

THE NEW FRENCH MEDICAL BILL.

Whatever may be said against this new bill it cannot be objected that it has been hurried through Parliament. The question has been studied for years, and more than a year has elapsed since it was brought before the *Chambre des Deputies* (Congress). The Minister of Public Instruction has now submitted a revised bill to the committee appointed to study the subject, and in its present matured form it will most likely soon become law.

As far as it regulates the position of foreign practitioners in France, there will not be any change from the practice of the past ten years. The clause in regard to it will read about like this: "All foreign medical doctors, who wish to practice in France, must pass an examination before a public jury of professors at one of the French medical faculties, and obtain the degree of M.D." There will then follow a clause saying that the faculty of medicine can throw off a certain number of the eleven examinations *when the candidate presents diplomas of value*. We have before stated that the French faculties have a full list of all the foreign faculties who give diplomas of A.M. M.D., etc., etc., and they know just what the equivalent value of each is to theirs. For instance, as regards American faculties, the three-year school doctor would get more than the two, etc. We might say, at the risk of repeating ourselves, that as regards American medical diplomas in general, they are not often accepted for more than one (the first) out of the eleven examinations in medicine in France. One of your new professors (at the Medico Chirurgical), Dr. Laplace, can confirm this, and tell of having to pass *ten* examinations to get his M.D. Panas and many others have had to pass all the examinations. As is already well known the French school requires of its students a Master of Arts degree before the student enters for his four years medical course. This degree, called the *baccalaureate*, is about to be modified.

While the legal course is four years at the French medical faculties, there are very few students who pass their examinations in five years, and many take six and seven years. One of the reasons for this, is that the faculty of Paris, for instance, does not go over the subject matter of the examinations yearly as is done in America. Many of the professors take as much as seven years to go over, in lectures, all the subjects they teach. We remember Prof. Sappey (when he was Professor of Anatomy) taking one whole year to lecture on the lymphatic system. This leads the students to stick to their books and hospital work, and coach up the examinations in their last year, which often gets them *adjourned* when they come up, or referred to their studies for three months at a time, and delays their final passing.

This state of things has led to quite a large section of the French hospital doctors making an agitation for the creation of a new medical school in Paris, to be called the "Hospitals' Medical School," leaving the present medical faculty to be a sort of high school (for examinations, etc). The large number of Paris hospitals, with their excellent staff of doctors (who are quite willing to teach) would make a fine *practical* school of medicine, and draw many students from Vienna. At present, while entrance for purposes of study is free to all in the Paris hospitals, the teaching is not carried out in full. Many hospital doctors give free clinics, but no organized courses are given in the *public* hospitals. Still plenty of private lessons are given in clinics, etc.

FOREIGN MEDICAL STUDENTS IN FRANCE.

The Paris medical papers are giving the number of medical students in France; and, as these statistics will be copied into our American medical journals, it may be well for me to say that, translated exactly, it will lead to errors as regards the number of American students, which is put down as *161!* In Europe, all the peoples of both the United States and South America—taking in Mexico, Brazil, and all the South American States—are known as *Americans*. The real number of United States of America medical students in France is not over a dozen, perhaps 6 in Paris, and the rest at Nancy, Bordeaux, and the other faculties. The following is a list of all the foreign medical students in all the French faculties: Full

number, 907; of which 9 are Germans; 56 English; about 12 United States of America; 150 other Americans; 7 Austrians; 9 Belgians; 22 Bulgarians; 37 Spanish; 41 Greeks; 13 Italians; 18 Portuguese; 87 Roumanians; 268 Russians; 39 Servians; 19 Egyptians; and the other countries give one or two each only. Of course, this does not include the thousands of French students. THOMAS LINN, M.D.

PARIS, August, 1890.

Book Notices.

ESSENTIALS OF ANATOMY AND MANUAL OF PRACTICAL DISSECTION, together with the ANATOMY OF THE VISCERA. Prepared especially for students in medicine. By CHARLES B. NANCREDE, M.D. Third edition, revised and enlarged, with thirty handsome full-page lithographic plates, in colors, and one hundred and eighty fine wood cuts. Philadelphia: W. B. Saunders, 913 Walnut St., 1890.

This is a good dissector's manual; with nice, clear type, and handsome cuts. The colored plates are especially commendable.

ESSENTIALS OF REFRACTION AND THE DISEASES OF THE EYE. By EDWARD JACKSON, A.M., M.D., and ESSENTIALS OF DISEASES OF THE NOSE AND THROAT. By E. BALDWIN GLEASON, S.B., M.D With one hundred and eighteen illustrations. W. B. Saunders, 913 Walnut St., Philadelphia.

A very good question-book for students preparing for examinations. The object being simply to refresh the memory upon subjects already studied in the systematic works, this volume accomplishes it very well.

A COMPEND OF EQUINE ANATOMY AND PHYSIOLOGY. By W. R. BALLOU, M.D. With twenty-nine graphic illustrations. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut St.

Certainly there are few physicians who are not sufficiently interested in the horse, to make them desirous of knowing something of the anatomy and physiology of the animal. To those who lack time and inclination to attack the larger works like Chauveau, this compend affords what may be called a "long-felt want."

WOOD'S MEDICAL AND SURGICAL MONOGRAPHS. Vol. VII, No. 1. July, 1890.

Contents: Stricture of the Rectum, by Chas. B. Kelsey, M.D.; Influence of Heredity on Alcoholism, by Dr. Paul Sollier, Paris; Rabies, by Louis Pasteur, Paris; Colotomy, by Thos. Bryant, F.R.C.S.; Massage of the Abdomen, by Dr. Rubens Hirschberg.

Pamphlets.

Scheme of the Antiseptic Method of Wound Treatment. By Dr. Albert Hoffa. Translated from the German, with additions, by special permission of the author, by Aug. Schachner, M.D., Ph.G., Louisville, Ky.

In this the entire antiseptic method is presented in the form of a chart, which can be hung up in the office. It is very ingenious, and conveys a great deal of information in a way to impress it upon the memory. The price is not given.

The New Treatment of Peritonitis. By Emory Lanphear, M.D. Reprint from *Kansas City Medical Index*.

The Present Status of the Operations of Intestinal Anastomosis and Enterorrhaphy, and the Comparative Merits of the Various "Aids" that have been Recently Suggested in the Performance of these Operations. By Rudolph Matas, M.D. Reprinted from the *New Orleans Medical and Surgical Journal*.

We are sorry to see that Dr. Matas, like many others, persists in crediting Dr. Davis' paper to the wrong journal. An abstract was published elsewhere, but the paper in full appeared only in the TIMES AND REGISTER, to which it was furnished by the author.

A Report of Six Cases of Vaginal Hysterectomy. By E. E. Montgomery, M.D. Reprinted from the Transactions of the Philadelphia County Medical Society, May, 1890.

ELECTRICITY IN GYNECOLOGY: THE GALVANIC APPARATUS. By C. N. SMITH, M.D., Toledo, Ohio. Reprinted from the Toledo *Medical and Surgical Reporter*.

CŒLIOTOMY. By R. P. HARRIS, A.M., M.D., Philadelphia, 1890.

Dr. Harris argues that cœliotomy and not laparotomy, is the proper Greek synonyme of abdominal section.

DOSIMETRY IN COLORADO, AND REFORMATION IN THE PRACTICE OF MEDICINE BY THE DOSIMETRIC METHOD. By J. E. MACNEILL, M.D., Denver, Colorado.

Somewhat sophomoric attempts at glorifying the dosimetric system, written for lay circulation rather than for the profession. One would think that the dosimetric system is better fitted for the "elegant and effete East," than for the vigorous young giant of the West, the Centennial State, (we beg the author's pardon if we have plagiarized his style), but this does not seem to be the case. When the dosimetric boomlet was yet in the dewy freshness of its roseate dawn, we betook us to the great metropolis of the East and bought some dollars' worth of granules from M. Fougera. The cute little vials captivated the ladies' eyes, but we quite failed to find the long-looked-for elixir in them. The granules of Chanteaud behaved themselves very much like those of Schieffelin, Wyeth and McKesson; and we were unable to see any advantage in substituting the French make, except to Chanteaud. The accuracy of medication can be secured quite as well by the use of any other manufacturer's goods; and the pushing of Chanteaud's is the only *raison d'etre* of dosimetry.

The Medical Digest.

KUMS recommends hypodermic injections of Hoffmann's anodyne for the relief of neuralgia.

AGARICIN, in pills made by McKesson and Robbins, has not proved of any value whatever in a case of night sweats of phthisis.

AMYLENE HYDRATE in half an hour shows its hypnotic effect, which lasts eight hours, and leaves the patient refreshed.—*Merck's Bulletin.*

BISMUTH has been found a useful remedy in gleet, but Bennett (*Amer. Pract. and News*) reports a case in which bismuth collected in the urethra until it formed an obstruction to the passage of urine.

TYPHOID FEVER AND VENEREAL DISEASES.—Isham, in the *Lancet-Clinic*, mentions four cases in which the supervention of typhoid fever apparently cured pre-existing gonorrhœa. The same good result was noticed in two cases of syphilis.

FAULKNER reports the case of a young woman who received a burn on the face, blistering the skin and leaving a scar. This was followed by pigmentation and a luxuriant growth of hair.

—*N. Y. Med. Journal.*

In speaking of the use of pilocarpine in puerperal convulsions, Edwards (*Va. Med. Monthly*) called attention to the danger from the accumulation of fluid in the bronchial tubes. If the bronchorrhœal action of the drug were great, the patient might drown in a convulsion.

Hepatic Abscess.—Hache enumerates the following symptoms: Hepatic pain fixed, limited, aggravated by pressure; widening of one or two intercostal spaces over the abscess; fluctuation, if superficial. The exploring needle is a harmless means of completing the diagnosis.

Paroxysmal, Spasmodic Indigestion is the name given by Upshur (*Va. Med Monthly*) to a case of pain about the pylorus, running down to the right along the ribs. This recurred about every ten days. It was relieved by nitro-glycerin in doses of gr. $\frac{1}{50}$; followed by tonics, light diet, etc.

Agaricic acid is reported by Kahler (*Merck's Bulletin*) as quite useful in relieving night sweats of phthisis. He gave $\frac{3}{4}$ to $1\frac{1}{2}$ grain. There is some difference of opinion as to whether the dose should be taken at once or divided. The antihydrotic effect sets in after several hours, and lasts about twenty-four hours.

Adonidin.—Oliveri reports good results from this in aortic and mitral insufficiency. He used the pure glucoside and the tannate, in doses of $\frac{1}{6}$ to $\frac{9}{10}$ grain, with chloroform water and ammonium carbonate, four times daily. These doses are questioned by *Merck's Bulletin*, as being nine times as large as those recommended.

Diabetes Insipidus.—Lindsay reported a case (*Brit. Med. Journal*) in which codeine and valerianate of zinc failed. Extract of valerian was then given in 5-grain doses, three times daily; and in a week the daily excretion of urine fell from 350 ounces to 50 ounces, and remained thenceforward at, or near, the normal point.

Phenyl-acetic and beta-phenyl-propionic acids are recommended as aiding the appetite and increasing digestion in phthisical cases; the former in the tubercular and the latter in pneumonic cases. Dose, ten to twenty drops of a concentrated alcoholic solution (1 to 6) in an ounce of water, thrice daily.

—*Merck's Bulletin.*

Mercury Hypodermically.—

℞.—Hydrargyri salicylat.....gr. xxiv to xxxvj
Mucil. acaciæ ..... ♏x
Aquæ dest.....℥j
M. ft. emuls.

The local reaction from this is said by Szadek to be very slight.—*Prov. Med. Jour.*

In Dysmenorrhœa of nearly all the common forms, particularly the congestive type from which girls and young women so frequently suffer, antipyrin is the best means of relief I have ever employed. I commonly prescribe a powder of fifteen grains of antipyrin with ⅙ grain of morphine, one powder often sufficing for each menstrual epoch. Given as soon as pain is felt it ordinarily quite averts the customary suffering and the period is passed in comfort.—Reding, in *Kansas Med. Journal.*

For Hæmoptysis.—

℞.—Tinct. digitalis gtt. xx. Every four hours.
Apply blister over the second right intercostal space, at the margin of the sternum. Order dry diet, ice, and no stimulants. Keep bowels open by means of glycerine enemata.

—*Waugh.*

For Infantile Pneumonia.—

℞.—Quininæ bisulph..... ℈j.
Ol. theobromæ..... ℥j.
M.—et in supposit. No. iv, div.
S. One every eight hours. Also, paint the back of chest with iodine and envelop in flaxseed jacket. Internally, give digitalis or ergot, in small doses.

—*Waugh.*

For Cholera Morbus.—

℞.—Tinct. capsici..... ℥ij.
Ol. cajuputi..... ℥ij.
Chloroformi..... ℥j.
Æther. fort..... q. s. ad. f℥ij
M.—S. ℥j to be taken, without water, every half hour till relieved.

—*Waugh.*

For Summer Diarrhœa in Children.—

℞.—Zinci sulphocarbolat..... gr. ss.
Bismuth subnit..... gr. ij.
Codeinæ ..... gr. $\frac{1}{24}$.
M.—Fiat tablet, No. j.
S. To be taken every one to three hours.

For children after the second year.—*Waugh.*

For Summer Diarrhœa in Adults.—

℞.—Tinct. hydrastis ..... ℥j.
Syr. rhei. aromat. ..... ℥v.
Potass. carb. *vel* nitrat..... ℥ss.
M.—S. ℥ss every four hours.

—*Waugh.*

For Amenorrhœa.—

℞.—Hydrargyri bichlorid..... gr. iv.
Sodii arseniatis..... gr. ijss.
Strychninæ sulphat..... gr. ss.
Potassii carb. pur.,
Ferri sulphat. exsic. .....āā gr. lx.
M.—et div. in pil. No. lx.
S. One pill after each meal.

—Winton, *Occid. Med. Times.*

From an examination of the urine of patients with typhoid fever and with scarlet fever, Luff (*Brit. Med. Jour.*) concludes that in each of these diseases a hitherto undiscovered ptomaine can be found in the urine during the febrile period, but disappears during convalescence. No ptomaine could be found in typhoid stools when fresh, though after forty-eight hours' standing one was apparently developed. The significance of these bodies has not yet been determined.

For Epilepsy:—

℞.—Rubidium ammonium bromide.... ℥jss.
Distilled water..... ℥iij. ℥ij.
Syrup of lemon ..... ℥v.
M.—S. Dose, ℥ss every two to four hours.

Merck's Bulletin also mentions a bromide of cæsium, rubidium and ammonium, a triple salt, as probably still more serviceable; but it is unlikely that these expensive salts will prove more effectual than the ordinary bromides, unless, perhaps, in some exceptional cases where the latter cannot be given.

THE SILVER LINES OF PREGNANCY.—Langdon thus summarizes a short paper in the *Cincinnati Lancet Clinic:*

1. The abdominal lesions known as "*striæ albicantes*," or "silver lines" of pregnancy (and other abdominal distentions) are a true deformity, due to over-stretching of an abnormally nourished skin.

2. Their prevention may be accomplished by daily inunctions of olive oil, followed by gentle hand friction for about ten minutes; the treatment should begin at or before the fourth month, bearing in mind that prevention, not cure, is the object sought.

3. Corsets, constrictions and suspension of clothing from waist bands are to be avoided entirely—at least after the third month of pregnancy.

To paraphrase the old adage—the lines are "silver," their absence golden. Another desirable object attained by the treatment is relief from the aches and shooting pains often complained of, which are largely due to the irregular stretching and compression of the nerves of the abdominal parietes.

DIAGNOSTIC TABLES.—

PROSTATITIS.	CYSTITIS.
1. Not a common disease.	1. A common disease.
2. Pain chiefly restricted to perineum and anus, and accompanied by fullness.	2. Not so limited and little if any perineal or rectal fullness.
3. Pain violent and throbbing.	3. Pain is not throbbing.
4. Stream of urine diminished in size.	4. Stream of urine may be normal in size.
5. Pain aggravated during defecation.	5. Not necessarily so.
6. Retention of urine probable.	6. Improbable.
7. Digital examination of the rectum reveals marked swelling and tenderness of the prostate.	7. No enlargement, and little tenderness.

—Harte, in *Jour. Amer. Med. Asso.*

NORMAL SLEEP, LIKE HYPNOTIC SLEEP, THE RESULT OF THE INHIBITION OF INTELLECTUAL ACTIVITY (Brown-Séquard).—In the researches which I published in 1882 upon inhibition and its rôle in hypnotism I have already shown that hypnotic sleep is an effect of inhibition. Besides, in many publications, but especially in a communication to the Academy of Sciences, I have demonstrated that in epilepsy, and in the organic affections, or traumatic lesions of the encephalus, the loss of temporary consciousness is due to an inhibition of intellectual activity. I wish now to show, in a few words, the reasons which lead me to consider normal sleep as the effect of an inhibitory act.

The theory according to which sleep depends upon a vascular contraction taking place in the central lobes (Durham, Hammond) is absolutely false, as I have shown some time since. In effect I have found that guinea-pigs and rabbits, after the section of the two great sympathetic nerves of the neck, sleep as if the cerebral circulation was in its normal state, that is to say, if it ceased by vascular contraction.

It is the same with dogs and cats, after one has cut away the superior cervical ganglion of one side, and the vago-sympathetic on the other. Whilst one has, by these operations, paralyzed the vessels of the neck, it is evident that sleep, which then occurs in the ordinary way, not only does not depend on a cerebral anemia from vascular contraction, but can even exist despite the opposite state, that is, a hyperemia even notable. It is certain, then, that sleep can exist, whether there is little or much blood in the cervical vessels.

The loss of consciousness during sleep, as in many other circumstances, accidental or pathological, is the effect of an inhibition of the cerebral faculties.

I rely to prove this opinion upon: 1. Direct proofs establishing that the loss of consciousness, in case of a wound of the bulb, and also in other cases, is incontestably due to an inhibitory act. 2. All that is known of the circumstances preceding or accompanying sleep.

I limit myself to saying on this subject that, as in all inhibition, there exists, while sleep is produced and continues, irritations from a distance of the organ where the cessation of activity has place. The proof of the existence of irritations is found in the following particulars:

1. What is called "the need of sleep," consisting of certain sensations, especially a heaviness of the eye.
2. Persistent contraction of the eye.
3. Contraction of the orbicular palpebral muscles.
4. Contraction of the internal and superior recti muscles.
5. Contraction of the blood-vessels of the retina and cerebral lobes.

I add that besides the inhibition of the psychic faculties there is a special inhibition of certain muscles (lavator palpebræ superioris and the muscles of the neck), and perhaps also an inhibition of the heart and the respiration. These different inhibitory phenomena, associated with sleep, show plainly the existence of an irritation of some part, or perhaps at many points, during that periodic state of cessation of intellectual activity.

The production of sleep with man, according to Fleming and Augustus Waller, depending upon a pressure exercised at once upon the carotid, the cervical sympathetic, and the vagus nerve, shows well that sleep can be produced by a peripheral irritation.

As to the ordinary seat of the irritation or irritations which cause sleep, I can say no more than this: (1) It is improbable that this can be in the brain, properly speaking, for, as we know, birds, and especially pigeons, sleep and awake periodically, after the ablation of their brain as well as before; (2) the reflex contractions and paralytic inhibitions which are associated with sleep, if we consider them as due to irritations proceeding from the same point, have their seat much more probably in the excitable parts of the base of the brain rather than in the cerebral lobes.

Before concluding, I will recall that in epilepsy which I produced in guinea-pigs, loss of consciousness, like the convulsions, is easily caused by a peripheric irritation, and that this occurs often in attacks of petitmal in man. I recall, also, that the loss of all cerebral activities could have place, by inhibition, as I have shown, under the influence of irritations even very light, of the base of the encephalon or of the spinal cord, but especially at the point that Flourens has named the vital knot.

It is not doubtful, after all these facts, that irritations of diverse seats exist during sleep, having commenced a little before the moment when slumber supervened. There is then every reason to acknowledge that the principal phenomenon of ordinary sleep, that is to say, the loss of consciousness, is the effect of an inhibitory act.—*Archives de Physiologie.*

PLACENTA PRÆVIA.—At the annual meeting of the North of Ireland Branch of the British Medical Association Dr. Dempsey read the notes of a case of placenta prævia which he had treated successfully by the introduction of a large piece of solid alum up against the os, and maintained in close contact with it by a vaginal tampon. He claimed for it a number of advantages. 1. It produces constriction of the uterine sinuses by hardening and contracting the uterine fibres in the lower segment of the uterus, against the outer surface of which it is in contact. 2. It appears to assist in causing thrombosis of the sinuses. 3. It produces a tenacious mortar-like coagulation of the effused blood, which acts as an additional tampon in the vagina. 4. It does not prevent dilatation; and, 5, from the limited experience of it, it appears to obviate the necessity for the usual operative measures required in placenta prævia until the os is sufficiently dilated to permit of them with safety. In the case in point the patient was a multipara between the seventh and eighth months of pregnancy; active hemorrhage was going on before the introduction of the alum, yet none occurred afterwards, though the placenta was central, and dilatation had proceeded almost to the full extent. The alum had been left in for seventeen hours. Immediately after its removal violent hemorrhage again occurred, but delivery by version was easy of accomplishment without any injury to the maternal structures. Dr. Dempsey also showed a most interesting specimen of placenta prævia where abortion had taken place at the fifth month of gestation, and which had been treated by the same method as the above. The placenta was centrally attached over the os in this case also, and the breech presented; but, owing to the very extensive uterine attachment of the placenta, the fœtus was born enclosed within the placenta. Only a very small portion of the amniotic membrane could be seen on one side of the fœtus like a small window in the placenta. The fundal part of the placenta was the thickest, and the funis was attached to this portion.

—*British Med. Jour.*

Medical News and Miscellany.

FLAT-IRONS are kept hot by electricity.

THE Sanitary Committee of the Board of Health recommended, last week, several unhealthy school-houses to be renovated.

THE famous Bath Springs House in Bristol, Pa., will shortly be torn down. It has been a noted house since its erection, in 1810.

MILTON J. ROSENAU, of Pennsylvania, has been nominated by the President to be Assistant Surgeon in the Marine Hospital Service.

THE use of pepper as a medicine was common in the days of Hippocrates, who applied it moisoned with alcohol to the skin of the patient.

A YOUNG daughter of Dr. Howard Pursell fell from the portico of her home, a distance of fifteen feet, one day last week, and was seriously injured.

DR. H. P. EVES, the State Veterinary Surgeon of Delaware, reports that the disease which has recently caused the death of a large number of cattle in the vicinity of Wilmington, and which was supposed to be Texas fever, was hydrophobia.

THE appointment of Dr. Baxter as Surgeon-General of the Army Medical Corps will be received with pleasure by the entire medical profession.

THE Pennsylvania and Maryland Union Medical Association will hold their tenth annual re-union at York, Pa., on Thursday, August 28, 1890.

DR. O. SAWYER, of Chicago, was shot, and it is feared fatally wounded, last week by J. Barton Sancher during a fight growing out of domestic troubles.

THE Medical College of South Carolina has formed into line and is recommending, and wishes to make obligatory, a three years' graded course to their students.

A SHERIFF seized a Western college for debt some time ago, and an inventory led to the discovery that the assets consisted of a first-class yell.—*Binghamton Leader.*

DR. SAMUEL MERRITT, the wealthiest citizen of Oakland, Cal., died on August 17. It is needless to add that his wealth was not acquired by the practice of medicine.

LAST week the public baths were patronized by 8,234 men, 105 women, 514 girls, and 46,242 boys. This will fairly represent the love of cleanliness in these classes.

FIVE persons have died at Nicolaieff from Asiatic cholera; eleven cases have been reported, and the Porte has decided to quarantine all arrivals from places on the Black Sea.

THIEVES attempted to enter the residence of Dr. L. D. Bauer, at Fifth and Fairmount, on the morning of August 18; but, hearing the doctor's stentorian voice, they left in a hurry.

THE cholera epidemic seems to be diminishing in Valencia and Toledo, but one hundred and seventeen deaths from it occurred one day last week in Mecca, and seventy-nine in Jeddah.

IT is commonly believed that the tendency to suicide, like the tendency to madness, runs in families; but a man may bring this tendency on by an overestimate of his working powers.

DR. G. W. CAMPBELL, of Newport, Pa., has been indorsed for Congress and has also been elected a delegate to the State Convention by the Prohibitionists of Perry County at New Bloomfield.

THE seventh annual report of the State Committee on Lunacy was issued last week. The report is made to the Board of Public Charities of the State, and is for the year ending September 30, 1889.

THE *Lancet*, discussing the Kemmler execution, says: "The operators in the Kemmler case used their mimic lightning with all the clumsiness of mortal inability. They burned the skull and a portion of the back, and exploded the sinuses of the brain. No doubt they were fortunate enough to render the man senseless at the first blow, just as they would have done if they had struck him on the head and back with a red hot hammer; but there was found no mark of the electrical current in or through the viscera of the body. The man was killed by concussion of the brain and explosion within the closed cavity of the skull, just as a man may be killed by apoplexy or sunstroke."

During a thunderstorm in Houghton county, Michigan, a Mrs. Kapper received a pretty strong dose of electric fluid. She had been suffering greatly from inflammatory rheumatism, but since the shock has not felt a single pain.

Dr. Wetherill, of the State Board of Lunacy, is giving earnest attention to the subject of help for the insane in time of panic or fire. At present every cell must be visited and unlocked, while the windows are permanently and strongly barred.

At the Southwestern Dispensary, the following number of cases were treated during the month of July: Medical, 136; surgical, 21; gynæcological, 20; diseases of the nose and throat, 14; diseases of the eye, 91; making a total of 282 cases.

Dr. W. F. Hern, of Carlisle, Pa., found a large amount of arsenic in the stomach of Mrs. Rebecca Gompher of that place, who is said to have been poisoned by her husband. He filed a sealed report of his investigation in the County Commissioner's office.

Now that the Kemmler execution is a thing of the past, it beats all creation how many of the I-told-you-so wiseacres knew beforehand that it would be an awkward and painful affair. The ex post facto prophet is just now on particularly good terms with himself.

In his Address on Surgery, Tait suggested that the medical student should take lessons from the carpenter and the blacksmith upon the way to use the saw, the hammer, etc. Judging by some operating we have heard of, the instruction had been limited to these handicraftsmen.

A Chemical Union, the aim of which is to monopolize the trade in chemicals, has been definitely formed. The union has a capital of $40,000,000, and proposes the production yearly of 150,000 tons of bleaching powder, 180,000 tons of caustic soda, and 300,000 tons of other alkalies.

Nursing Poison Again.—A case is reported in the *Australian Medical Gazette*, of a woman who, on taking a dose of chlorodyne for the relief of pain, soon after suckled her twin babies. The children were found the following morning profoundly narcotized, and died before evening.

A so-called doctor of Galicia, Austria, burned the bones of two Jewish children in the apartments of a person suffering from typhus fever, thus pretending to cure the disease. He succeeded in nearly smothering the patient, but it is not stated whether the patient recovered. The "doctor" was imprisoned.

The first of the Second Series of Health Talks, under the direction of the National Women's Health Association, was given in the lecture-room of St. Paul's Church, on Thursday afternoon of last week, by Dr. Caroline M. Dodson, the subject being "The Care of Infants and Young Children during the Heated Term."

Sister Gertrude, of Kalihi Rec. Station, Oahu, Hawaiian Islands, thinks much of the malignity of leprosy can be arrested by the help of a good physician with a practical knowledge of all the drugs of the pharmacopœia, their action, affinities, etc., and a further knowledge of many cutaneous diseases and efficacious remedies.

Dr. Thomas B. Reed, accompanied by his wife and three daughters, is spending his vacation at Berkeley Springs, West Virginia; the doctor expects to remain at the Springs until September, when he will return to his summer residence at Media, from which he comes to the city each day, to look after the large practice which he enjoys.

Dr. S. Weir Mitchell, of Philadelphia, recently received from a woman patient the singular present of a cord of white-oak wood, chopped down and sawed up by her own hands. He had recommended to her an active outdoor life in the woods for nervous invalidism. She had followed his directions, with results of which the cord of sawed wood was one of the evidences.

Dr. Allan McLane Hamilton, who has studied and written since 1873 on the application of electricity to the human body, has, after many experiments, come to the conclusion that electrical execution is a humbug, and openly avows his belief that carbonic acid gas introduced secretly by concealed pipes into a lethal chamber would furnish the ideal of civilized extermination for murderers.

Six years ago there were scarcely a hundred electric motors in operation in the United States for any purpose; to day there are not less than 15,000 motors in use, applied to not less than two hundred different industries, and an industrial revolution is taking place equaling, if not surpassing, in importance that attending the introduction of the steam engine, and marvelous in the rapidity of its growth.

Homes for Nurses.—It is proposed in London to buy and endow a home of rest for nurses, especially those of the London hospitals, who have little opportunity for change or relaxation, or leisurely convalescence after sickness.

A movement is on foot in Brooklyn, to erect a home and hospital for the trained nurses of that city. It is intended to be self-supporting, as is the nurses' house in Boston, which is under the auspices of the Guild of St. Barnabas, for nurses.

Two more feminine doctors have been received into the Faculty of Medicine in Paris. They are Madame Kouindjy, a young Russian, and Mdlle. Marie Roussell, from Rouen. Both read their theses personally before the Faculty, and were applauded warmly by the masculine doctors, who apparently regarded with no disfavor these fair competitors in the ranks of medicine. The Russian "doctress" introduced into her *thèse* a warm eulogy of France and French learning, which called forth naturally the plaudits of the assembly.

The Rev. John A. Mulcahy, of Waterbury, Conn., who is traveling abroad, in a recent letter home, says of the people of Munich, that "they have a great fear of being buried alive, and for that reason, when a person dies the body is placed in a receiving vault, where it is kept for four days, and, under the method now used, a sponge is placed in one of the dead persons hands, which is connected by a copper wire with a battery and alarm signal; the hand is fastened tightly around the sponge, and at the least sign of returning animation the alarm is sounded, and the sentries, some of whom are always on duty, respond at once. In the last fifty years there have been thirty-four persons resuscitated by means of precautions of this kind."

MADAME CHARLOTTE BOURNONVILLE, of this city, who died recently, was the mother of Dr. A. C. Bournonville, and the widow of Dr. Anthony Bournonville, Past Grand Master of F. and A. M. of the State of Pennsylvania. During the war she was one of the most efficient ladies' aids attached to the Fifth Street United States Army Hospital. After the battle of Gettysburg she went to the field, and aided with supplies the sick and wounded soldiers. She was a native of France, and had resided in Philadelphia the past seventy-five years.

NEW PATENTS:—

PATENTS GRANTED AUGUST 12, 1890

Atomizer	P. J. McElroy	Cambridge, Mass.
Hospital bedstead	F. L. Bryant	Chicago, Ill.
Capsule-dryer	T. C. Merz	Detroit, Mich.
Nitro-cellulose	G. M. Mowbray	North Adams, Mass. (Two patents.)
Spray-diffuser	E. W. Mackenzie-Hughes	Chicago, Ill.
Truss	Brownlow & Warner.	Ogdensburg, N. Y.

TRADE-MARKS ISSUED AUGUST 12, 1890.

Rheumatic liniment (The word "Rheumaticide" in red letters and in a curved line)	Smith & Parr	Washington, D. C.
Remedies for diseases of the throat and lungs (The word "Broncha" in script letters)	T. V. Sords	Cleveland, O.
Oil of lemon (The word "Limoniano")	Dodge & Olcott	New York, N. Y.
Oil of bergamot (The word "Bergamottino")	Dodge & Olcott	New York, N. Y.
Oil of orange (The word "Aranciano")	Dodge & Olcott	New York, N. Y.
Blackberry brandy (A monogram of the registrant's firm "R. Bros" surrounded by a wreath composed of a blackberry vine)	Rheinstrom Bros.	Cincinnati, O.
Remedy for certain named diseases (The words "Bureau of American Remedies")	S. E. Root	Rochester, N. H.

LABELS ISSUED AUGUST 12, 1890.

"Mrs. L. Schmidt & Co's Healing Liniment"	Mrs. L. Schmidt & Co.	New York.
"Almond Nut Salve" and "Almond Nut Cream"	Mary E. Murray	Chicago, Ill.

—Charles J. Gooch, *Patent Attorney.*

WASHINGTON, D. C.

INTERMENTS in Philadelphia, from August 9–16, 1890:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess of lungs	1		Hemorrhage, umbilical		1
Asphyxia		1	Inflammation brain	1	11
Apoplexy	4		" bronchi	2	
Bright's disease	6	1	" bladder	1	
Cancer, arm	1		" kidneys	3	
" stomach	1		" liver	1	
" uterus	3		" lungs	8	12
" tongue	1		" pericar'm	1	1
Casualties	3	2	" peritou'm	2	
Cerebro spinal meningitis		1	" s. & bowels	7	10
Congestion of the brain		4	Inanition	1	15
" lungs	1	3	Marasmus	1	18
Child birth	1		Old age	8	
Cholera infantum		30	Obstruction of the bowels	1	
" morbus		1	Paralysis	6	
Cirrhosis of the liver	1		Poisoning, carbolic acid	1	
Consumption of the lungs	34	1	Pemphigus		1
" " bowels		1	Rheumatism	1	
Convulsions	1	10	Shock, surgical	1	
Croup		3	Scrofula		1
Cyanosis		2	Septicæmia	2	
Debility	1	10	Sore mouth		2
Diarrhœa	3	4	Softening of the brain	1	
Diphtheria		2	Suffocation	1	
Disease of the brain	1	2	Syphilis		1
" " heart	17	2	Tabes mesenterica		1
Drowned		1	Tetanus	1	
Dysentery	5	3	Tumor, brain		1
Epilepsy	1		" ovarian	1	
Fatty degeneration of the heart	1		Ulceration of the bowels	1	
			" " stomach	1	
Fever, scarlet		2	Uræmia		1
" typhoid	4	10	Whooping-cough		16
Hemorrhage from brain	1		Total	146	191
Erysipelas	1				

THE State Board of Health of Pennsylvania have issued a series of circulars entitled "Precautions against Consumption," "Precautions against Contagious and Infectious Diseases," "Precautions against Typhoid Fever," "Precautions against Scarlet Fever," and "School Hygiene." These circulars are of a very instructive character, and will be of value both to the physician and the general public. Copies of these papers can be obtained by inclosing a two-cent postage stamp to Dr. Benjamin Lee, Secretary of the Board, Philadelphia.

TO CONTRIBUTORS AND CORRESPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy & Marine Hospital Service.

Changes in the Medical Corps of the U. S. Navy for the week ending August 16, 1890.

WALES, P. S., Medical Director. Detached from Medical Examining Board, and to resume present duty at Museum of Hygiene.

AMES, H. E., Passed Assistant-Surgeon. Ordered as member of Medical Examining Board, in addition to present duty.

SAYRE, J. S., Passed Assistant-Surgeon. Detached from Navy Yard, New York, and to the U. S. S. "Ranger."

NORTH, J. H., JR., Assistant-Surgeon. Ordered to the Navy Yard, New York.

BARBER, G. H., Assistant-Surgeon. Detached from the U. S. Receiving-ship "Vermont," and to the "Pensacola."

VON WEDEKIND, L. L., Assistant-Surgeon. Detached from the "Pensacola, and to the "Vermont."

AUZAL, E. W., Passed Assistant-Surgeon. To temporary duty at Naval Academy, to examine candidates.

FITTS, H. B., Passed Assistant-Surgeon. Detached from the U. S. S. "Pinta," proceed home, and wait orders.

STONE, E. P., Passed Assistant-Surgeon. Detached from the U. S. S. "Independence," and to the "Pinta."

WHITFIELD, J. M., Assistant-Surgeon. Detached from the Monitors, and to Naval Hospital, Norfolk.

AYERS, JOSEPH, Surgeon. Ordered to Naval Academy, to examine candidates for admission.

BRIGHT, GEO. A., Surgeon. Ordered to Naval Academy, to examine candidates for admission.

SMITH, GEO. T., Assistant-Surgeon. Detached from Naval Hospital, Norfolk, and to U. S. S. "Independence."

WHITE, S. S., Passed Assistant-Surgeon. Detached from Marine, and to the Naval, Rendezvous, San Francisco, Cal.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service from July 26, 1890, to August 12, 1890.

SAWTELLE, H. W., Surgeon. Granted leave of absence for fifteen days, Aug. 8, 1890.

WHEELER, W. A., Passed Assistant-Surgeon. Granted leave of absence for thirty days, Aug. 5, 1890.

CARMICHAEL, D. A., Passed Assistant-Surgeon. Granted leave of absence for thirty days, Aug. 2, 1890.

PECKHAM, C. T., Passed Assistant-Surgeon. Granted leave of absence for thirty days, July 28, 1890.

AMES, R. P. M., Passed Assistant-Surgeon. Granted leave of absence for fourteen days, Aug. –, 1890. To proceed to Shreveport, La., as inspector, Aug. 5, 1890.

KALLOCH, P. C., Passed Assistant-Surgeon. Granted leave of absence for seven days, July –, 1890.

PERRY, J. C., Assistant-Surgeon. To proceed to Wilmington, N. C., for temporary duty, July 31, 1890.

SMITH, A. C., Assistant-Surgeon. Granted leave of absence for thirty days, Aug. 11, 1890.

YOUNG, G. B., Assistant-Surgeon. Leave of absence extended twenty days, on account of sickness, Aug. 2, 1890. Upon expiration of leave, to proceed to New Orleans, La., for temporary duty, Aug. 8, 1890.

STIMPSON, W. G., Assistant-Surgeon. When relieved at Buffalo, N. Y., to proceed to Norfolk, Va., for temporary duty, Aug. 5, 1890.

Medical Index.

A weekly list of the more important and practical articles appearing in the contemporary foreign and domestic medical journals.

Amer. *vs.* European med. education, Potter. J. Am. M. Ass'n.
Abdominal section for removal of the uterine appendages, Hall. Weekly Med. Rev.
Antiseptics, abstract of literature for 1888, French. *Ibid.*
Analisis biologico del agua de un pozo del pueblo de Regla, Davalos. Cronica Med.-Quir. de la Habana.
Arsenical peripheral neuritis, two cases, Barton. Lancet.
Anomalous case of salivary calculus, Owen. *Ibid.*
Alterazioni del talamo ottico nella paralisi progressiva. Rif. M.
Anevrismul crosei aorte, Stoicescu. Clinica.
Aristol, Romano. *Ibid.*
Amputation of the neck of the cervix uteri, dysmenorrhœa from cervical stenosis, Goodell. Med. News.
Amputation with reference to the adaptation of artificial limbs, Garnett. Med. News.
Alcoholism in the Bellevue Hospital "cells," Dana. J. Ineb.
Abdominal nephrectomy for hydro-nephrosis, Wishart. Montreal Med. Jour.
Atrophy of the skin, unusual case of, Ohmann-Dumesnil. The Alienist and Neurol.
Acute ascending myelitis, Mackensie. Gin. Lancet-Clinic.
Auscultatory percussor, Seaman. Med. Record.
Basedow's disease, pathol. and treatment of, Kahlar. M. Press.
Bright's disease treated by sodium chloride, Menninger. The Medical Age.
Cascara in syphilitic ulcerations, Haines. Therap. Gaz.
Carcinoma mammæ, their early diagnosis and treatment, Allen. Cleveland Med. Gaz.
Contagium of puerp. fever, McDermott. Am. Pract. and News.
Clinical study of rheumatism, Marshall. *Ibid.*
Complete atony of the uterus following anti-partum hæmorrhage in case of placenta prævia, Watkins. Lancet.
Cecite amensée par la quinine, Tiffany. Recueil d'Ophtal.
Cholera infantum, treatment of, Fritts. Lanphear's Kansas C. Med. Index.
Conflict between the organism and the microbe, Hankin. British Medical Jour.
Croonian lectures on cerebral localization, Ferrier. *Ibid.*
Continued fevers of Galveston, nature and treatment, Wilkinson. Texas Cour.-Record of Med.
Clinical use of electricity in the diseases of women, Bevill. *Ib.*
Chorea minor in ihren Beziehungen zum Rheumatismus und zu Herzklappenfehlern, Meyer. Berliner Klin. Wochen.
Chloralamid, Whitmore. South. Cal. Pract.
Comment nourrir nos enfants, Lachapelle. L'Un. M. du Can.
Cerebral localisation, Ferrier. The Lancet.
Comparative dangers of chloroform and ether anæsthesia, Keiser. Univ. Med. Mag.
Causes and prevent. of infant mortal., Walker. Brookl. M. J.
Care and feeding of infants, remarks on mortality of infants in summer months and mode of prevent., Smith. Diet. Gaz.
Cerebellar tumor with monocular diplopia as a symptom, Shaw. The Alienist and Neurol.
Creolin bei Erysipel und Eczem. Memorabilien.
Cerebral localization, report of cases illustrating, McBride. Jour. of Nerv. and Mental Dis.
Contribution to the therap. of spastic paralysis, Gibney. *Ib.*
Colles' fracture, with especial reference to treatment, Huse. Boston Med. and Surg. Jour.
Conservative surgery on the hand, Rau. Med. Record.
Doctrine of modern prophylaxis, Estes. Leh. Valley M. Mag.
Diagnosis and treatment of inguinal hernia, Roe. *Ibid.*
Die Erkrankungen des Sehorgans im Gefolge der Influenza, Pfluger. Berliner Klin. Wochenschrift.
Diet in consumption, Judd. Jour. Amer. Med. Ass'n.
Des nouveaux moyens d'explorations des fonctions digestives, Dujardin-Beaumetz. Bulletin Gén. de Therap.
Du chloral en chirurgie, Sée. La Méd. Moderne.
Despre tratamentul rheumatismului priu mercur, Calalb. Clin.
Des accidents de la chloroformisation, Verneuil. Bulletin de l'Acad. de Méd.
Deux cas de fracture difficilement reductibles, Janet. La France Médicale.
De quelques complications de l'operation des tumeurs adenoides du pharynx nasal, Cartaz Revue de Laryng. d'Otol.
Delir. tremens as a defence to criminality, Poole. Med.-Leg. J.
Diseased cravings and paralyzed control, Clouston. J. of Ineb.
Diagnosis of simulated mental and nervous disease, Eskridge. N. Y. Med Jour.
Dosage and administration of creasote in phthisis, Flint. *Ib.*
Disorders of sleep, Mitchell. Amer. Jour. Med. Sciences.
De l'aristol et de son emploi en gynecologie. Gaz. de Gynec.
Diphtheria, Cosgrove. Toledo Med. and Surg. Rep.
De la douleur dite caracteristique de l'ulcere rond de l'estomac, Bernheim. Le Bulletin Méd.
Discussions sur les accidents de la chloroformisation, Guerin. Bulletin de l'Acad. de Méd.
Des mesures propres à rendre moins faible l'accroissement de la population de la France, Javal. *Ibid.*
Double ovariotomy, case of, 1882, removal of left kidney with portion of mesentery, 1889, followed by abscess finding vent through left lung, recovery, Myrtle. Med. Press.
Du begaiement hysterique, Gilbert, Ballet et Tissier. Archives de Neurologie.
Diabetes mellitus, Benson. Dietetic Gaz.
Drunkenness, its influence on morality, Wright. Al. and Neur.
De la folie cardiaque, Ball. La Méd. Mod.
De la gale, Fournier. La France Méd.
Des causes du purpura, Potain. Le Bulletin Méd.
De la folie jalouse, Ball. *Ibid.*
Euphorbia pilulifera, Workman. Therap. Gaz.
Empyema complicated with pulmonary œdema, remarks, Huber. N. Y. Med. Jour.
Experiments on the comparative value of various antiseptics in treatment of diseased teeth, Miller. Dental Cosmos.
Enteric fever, with four distinct relapses, Carslau. Lancet.
Ein Beitrag zur Lehre von der Pseudobulbarparalyse, Munzer. Prager Med Wochenschrift.
Etiology of phthisis pulmonaris, Bell. Northwestern Lancet.
Examination of sputum, Wethered. Med. Press.
Expert testimony before a jury in trial for insanity, Smith. Memphis Med. Monthly.
Epilepsy as a defence for crime, Elwell. Med.-Legal Jour.
Exomphialismus, Fritts. St. Joseph Med. Herald.
Expectorants, Davison. Canadian Pract.
Etiology of puerperal fever, and method of preventing this dread condition, Temple. *Ibid.*
Ein Beitrag zur Hemeralopie und zur Xerosis conjunctivæ epithelialis, Uhthoff. Berliner Klin. Wochenschrift.
Etiology of phthisis, tubercular peritonitis, Gibbes. Amer. Jour. Med. Sciences.
Ein Verfahren zur Beseitigung des akuten, nach Penetration der Brustwand entstandenen Pneumothorax, Witzel. Centralblatt für Chirurgie.
Ether as a menstruum in medicat. by the skin, Sawyer. Lanc.
Ein rother Bacillus im Flusswasser, Lustig. Centralblatt für Baktereologie u. Parasitenkunde.
Electricity in gynæcology, the galvanic apparatus, Smith. Toledo Medical and Surg. Rep.
Etudes sur l'anatomie pathologique de la moelle epinere, Francotte. Archives de Neurol.
Unrecognisable lesions of the labyrinth, Ogston. Med. Press.
Un caso de muermo, comprobacion bacteriol., Arrueat. Cron.
Ueber Manie, Kraft-Ebing. Intern. Klin. Ruudschau.
Ueber abwechselnde Zusammenziehung der beiden Herzhälften, Systolia alternaus, Unverricht. Berl. Klin. Wochen.
Un non proceden pentru tratam. emoroi delor, Kiriac. Clin.
Ueber die Ursache der Sporenbildung beim Milzbrandbacillus, Buchner. Centralblatt.
Un cas de rhinolithe, Noquet. Rev. de Laryng. d'Otologie.
Ueber den weissen Infarct der menschlichen Placenta, Favre. Arch. f. Pathol. Anat. u. Physiol.
Ueber den Einfluss partieller Leberexcision auf die Gallenabsonderung, Lukjanow. *Ibid.*
Ueber Blutparasiten, Kruse. *Ibid.*
Urinary disorders, Harrison. Med. Press.
Ueber eine Hernie des Processus vermiformis, Zdekauer. Prager Med. Wochen.
Vaginal Hysterectomy, six cases, Montgomery. Med. Bull.
Vaccine obligatoire et vaccine animale, Reuff. La Méd. Mod.
What is heredity? Brooks. Jour. of Heredity.
Wound-drainage by self-removing tube, Vance. Practice.
What is the present medico-legal status of the abdominal surgeon? Potter. Jour. Amer. Med. Ass'n; Am. J. Obstet.
What shall we feed the baby this summer? Lord. Omaha Cl.
What is accomplished by use of digitalis in cardiac disease? Le Fevre. N. Y. Med. Jour.
Zur Wundbehandlung ohne Drainage, Reczey. Wien. M. Pr.
Zur Anwendung der Salicylsäure bei Behandlung der venerischen Geschwüre, Janowsky. Internat. Klin. Rundschau.
Zur Therapie d. Morbus Brightii, Semmola. *Ibid.*
Zur Frage der Localisation des Kehlkopfes an der Grosshirnrinde, Kraner. Berliner Klin. Wochenschrift.
Zur Behandlung der pleuritischen Exsudate, mit besonderer Berücksichtigung des Empyems, Blasejenski. *Ibid.*

The Times and Register.

Vol. XXI, No. 9. NEW YORK AND PHILADELPHIA, AUGUST 30, 1890. Whole No. 625.

PAGE

ORIGINAL ARTICLES.

PREVENTIVE INOCULATION. By Frank S. Billings - - - - - - - - - - - - - 185
THE REMOVAL OF A DISLOCATED CRYSTALLINE LENS WITH THE AGNEW BIDENT. By C. B. Blubaugh, M.D., Parksburgh, W. Va. - - - - - - - - - - - - - - 159

THE POLYCLINIC.

PHILADELPHIA HOSPITAL: Metastatic Epithelioma. *Ernest Laplace, M.D.* - - - - - - - - - - - - - - 200

EDITORIALS.

IRREGULARS - - - - - - - - - - - - - 202

PAGE

LETTERS TO THE EDITOR.

Screw-Worms. *Fiegenbaum* - - - - - - - 202
Correction. *Hughes* - - - - - - - - - - 203

BOOK NOTICES.

Cyclopedia of the Diseases of Children, Vol. III. *Keating* - - - - - - - - - - - - 203

PAMPHLETS - - - - - - - - - - - - 204

THE MEDICAL DIGEST.

The Fundamental Factors in the Causation of the Infectious Diseases. *Vaughan* - 201
Treatment of Diphtheria. *Gros* - - - - - 201
Alteratives in Nervous Diseases. *Hutchinson* - - - - - - - - - - - - - - - - - 201

PAGE

Contagiousness of Cancer. *Arnaudet* - - 204
Is Diabetes Contagious? *Schmitz* - - - - 204
For Ozena. *Cozzolina* - - - - - - - - - 204
Calomel as a Diuretic. *Fackler* - - - - - 204
Intraocular Syringing in Cataract Extraction. *Lippincott* - - - - - - - - - - - 204

MEDICAL NEWS AND MISCELLANY, 205

ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - - - 207

MEDICAL INDEX - - - - - - - - - - 208

NOTES AND ITEMS - - - - - - iv, xiv

Original Articles.

PREVENTIVE INOCULATION.[1]

BY FRANK S. BILLINGS.

PREVENTIVE inoculation is an unquestionable possibility in all diseases of a non-recurrent character. Nature has indicated this fact for hundreds of years, but man has scarcely learned to appreciate it. We start upon an already open path. At its very entrance we can see the guide-post "non-recurrent." To pass on to success requires simply honest and heroic workers. The spirit of a common humanity should rule where greed for the almighty dollar now reigns supreme. The nation itself must be educated to an appreciation of what can be done; then success will come. Only heroes can do such work. The present reign of mediocrity and unprincipled selfishness in our laboratories must be crushed. Better anarchy than the existing conditions! Fraud rules in the place of scientific honesty. Salary grabbers occupy places which should be filled by original investigators with the true scientific spirit. No mind but a free one can investigate correctly.

The Difference Between Experimental and Preventive Inoculation.—These two procedures must be most sharply differentiated. While preventive inoculation must necessarily depend upon experimental for its perfection, we have no need to resort to it to demonstrate prophylaxis by this method to be a possible fact. Preventive inoculation does not depend upon experimental for its demonstration as a possibility. Nature has already done that, as mentioned.

The True Value of Experimental Inoculation.—What do we mean by experimental inoculation? Let us thoroughly understand that first.

By experimental inoculation we simply mean the transference of the disease products (or, pure cultivations of the micro-organismal cause of a given disease) from diseased to healthy individuals of the same, or other species of animal life, in order to see what the results may be.

It is an attempt at transference, nothing more.

The success of such an experiment is determined entirely by the nutrition offered, by the animals inoculated, to the germs of the disease inoculated.

The amount of imbecile nonsense which has crept into medical literature upon this subject is almost indescribable. Koch and his school are almost entirely to blame for it. It shows an utter want of true pathological knowledge and philosophical acumen. It is entirely wanting in sequential logic.

It has been assumed that experimental inoculation in small animals must of necessity determine the real nature of the disease of the animal from which they were inoculated. Such a hypothesis is absolutely absurd. It need not necessarily determine anything of the kind.

These writers do not know the logical definition of the word *contagious*. While they frequently write deftly about "faculative" and "obligatory parasites," their language in regard to the results of experimental inoculation shows that they use words without knowing their logical application. They speak of the "contagion of anthrax" (a faculative parasitic disease), and the "contagion of glanders" (an obligatory parasitic disease), in the same breath. Logically speaking, the word "contagious" simply means the coming in contact with an infectious principle, utterly regardless of its origin. It may be a syphilitic person in one case, and a filth hole in the ground in another. Both may be equally "contagious," but the inficiens in each case had a different origin. This, and this alone, must decide the nature of a disease. They must, of necessity, be either ex- or endogenous primarily. Practically, all

[1] Read before the Section for State Medicine at the Annual Meeting of the American Medical Association, Nashville, Tenn., May 22, 1890; and the Chicago Medical Society, June 2, 1890.

physicians and hygienists know what they mean by a "contagious" disease. They mean that a diseased individual must be, or has been, present of a given species of animal life as its primary source of origin. Historically, we know of no other primary genesis for these diseases. We know that no individual can acquire syphilis, or glanders, or scarlet, or mumps, unless an individual having been afflicted with one of these diseases has been in the immediate vicinity. The closeness of the contact necessarily varies in different diseases. Remove such diseased individuals, clean up or destroy their belongings, and the danger of contagion is removed.

Experimental inoculation cannot strengthen the case in the least degree. The endogenous character of such diseases, that they were strictly contagious in the practical sense, was known centuries before a bacterium was ever heard of. Only bacterio-fanatics seem to be ignorant of this fact. Inoculation of small animals cannot strengthen it an iota. To ignorant minds it might weaken the practical every-day evidence. All animals are not equally susceptible to a given inficiens. Even though experimentally inoculable, a given contagious disease often loses its specific, practical characteristic by inoculation in experimental animals of a given species, but different from that in which it naturally occurs. For instance: glanders, transmitted from a diseased horse to rabbits or guinea-pigs, will not extend, of itself, to uninoculated rabbits or guinea-pigs. It is not contagious in these animals.

A recent writer says that the "crucial test" of the contagiousness of tuberculosis was only obtained when the results of inoculation in rabbits and guinea-pigs had become known. Nonsense! The "crucial test" is the result of contact between diseased and healthy individuals of the species in which a disease naturally occurs, or is naturally transmitted to by accident. According to these absurdly illogical observers of pathological phenomena, syphilis should not be contagious because non-transmissable by inoculation to domestic animals. Why any sane person, looking upon himself as an investigator, especially such an one as Koch, should speak of the contagion of anthrax, swine, plague, diphtheritis, or rabbit septicemia, passes one's comprehension. The latter disease has been especially mentioned, because it is not a natural disease in rabbits, simply to demonstrate the utter absurdity of this position.

The word "contagious" does not properly express the practical and hygienic meaning attached to the diseases to which that name has been given. As repeatedly stated, and as must be definitely understood, it simply means contact with an inficiens, and has no absolutely necessary connection with origin. Let us illustrate this with an example: A physician makes an autopsy on two different people on the same day; the one has perished from syphilis, the other from anthrax. In both cases he accidentally cuts a different finger, and in one becomes a chancre, in the other a malignant pustule develops. Such a thing is possible, but not probable. What has taken place?

Accidental inoculation, through contact with two differently-diseased individuals — contagion. The primary origin of these two diseases has been entirely different, however. The syphilis primarily originated from another individual; the anthrax from the ground of some locality. The one is endogenous, the other exogenous. This at once demonstrates the folly of any further use of the word "contagious" in the differential classification of diseases, as it does not express our true meaning.

To sum up, then, we can logically speak of diseases as extra-organismal, or exogenous; intra-organismal, or endogenous, and sporadic—that is, of undemonstrable origin; or, in other words, from the etiological point of view we can logically only classify diseases according to the primary origin of their cause. Or, to speak with Hueppe, as "obligatory parasites," by which he means that such etiological moments are primarily bound on the conditions offered by some form of animal life for their existence and continuous development; or, in other words, such diseases are "endogenous" in origin, to speak with Pettenkofer, or intra-organismal in origin, as I have termed it.

An endogenous disease is one which, so far as we can historically trace its genesis, has found, and still finds, its locus of primary origin for each new outbreak or extension of the disease in a diseased individual of some given species of animal life (and never in any other way), and then passes directly from the diseased individual to another susceptible, healthy one, either by direct contact or cohabitation, or by contact with some effluvia, secretion, or other material which has either come directly from, or been in immediate contact or relation with, such a diseased individual.

Speaking in the old sense, such a disease would be "contagious." Speaking according to the nonsensical usage of the word at present, no one can tell what its true origin might have been.

In contradistinction to obligatory parasitic diseases, Hueppe has given us the term "faculative parasites," by which he means to indicate diseases of parasitic origin, in which the point of primary development of the germs is invariably outside the animal organism; but they have the faculty of living for a time within the organism of certain species of animal life, becoming parasitic or disease-producing for the time, when such animal organisms offer the necessary nutrient conditions to their life. To this class Pettenkofer has given the name "exogenous," while I have termed them "extra-organismal," or diseases which find their primary origin in external or surrounding conditions. Or, in other words:

An exogenous disease is one which invariably finds its locus of primary origin not in, but outside of, an animal organism; that is, in the earth, or in the surroundings of animal life, where its micro-organismal cause develops under certain conditions of climate and soil, which offer the necessary nutrient conditions to the life and continuous development of its germ.

The infected earth or locality bears the same relation to animal life in the origin of exogenous diseases that the infected animal organism does to healthy susceptible animals in endogenous diseases; that is, they each form centers of primary origin regarding specific diseases in their respective class, but with this difference: *the focus of primary generation, or infection, is fixed in exogenous diseases, while it is movable in endogenous.*

The locus infectionis, that is, the point of primary infection or origin, is contagious in either case. In the one, a healthy susceptible individual must come in direct contact—that is, be upon, or in, such an infected locality, or come in contact with material derived directly from such a locality; while in an endogenous disease the same occurrences must take place in reference to some form of animal life. Hence it is to be readily seen that the word "contagious" has no logical use or place in the nosology of diseases, according to the results of modern methods of investigation.

Preventive Inoculation.—Preventive inoculation is an entirely different procedure. It is based upon a natural phenomenon, viz., that a given disease is non-recurrent in character. But more; that this non recurrent condition of the organism is produced equally as well in the mildest attack of a given disease as in cases in which the diseased individual barely escapes with life. Diseases of this non-recurrent character are small-pox, typhus abdominalis (vulgarly called typhoid fever), measles, mumps, scarlet, whooping-cough, chicken pox, yellow fever, and some others in the human family; and in the domestic animals some of the so-called horse distempers, contagious pleuro-pneumonia in cattle; anthrax, swine-plague, rouget in swine; hen cholera, Southern cattle plague, (Texas fever), and black-leg, and probably the corn-fodder disease, and others.

Some authorities assert that Asiatic cholera is also non-recurrent in character, and I am inclined to think that glanders can be made so by the inoculation of farcy in a mild form. There are probably quite a number of these diseases still unknown to us in the poorly-investigated portions of the globe. I am one of those who, at present, does not believe that rabies is a non-recurrent disease, and hence have no faith in inoculation as a preventive. That non-recurrent diseases can be prevented by inoculation was first discovered in small-pox, and then demonstrated by Pasteur to be possible in anthrax, hen cholera, and rouget, and by Arloing and others in black-leg; by Willems in pleuro-pneumonia in cattle; by Freire in yellow fever in Brazil; by the author in swine-plague, and by Dr. Paquin, of Missouri, in Texas fever in this country. With none of these diseases but small-pox can we claim to have arrived at any perfected method; but still, the immense losses incurred, and the practical results which have followed, warrant the continuation of present methods until others are discovered, or these improved upon. The value of their discovery, and the practical demonstration that inoculation will prevent in the diseases enumerated, cannot be overestimated. It shows what can be done, and will be a stimulus to more extended endeavors. It is my firm belief that before the end of the next century every non-recurrent disease at present known to us will have been brought under the control of preventive inoculation, but more especially those of child-life.

Who can place a monetary value upon such results? Is not the mere possibility of such a result promised, as it is directly, to us by the very non-recurring nature of these plagues of our babes, sufficient to warrant the establishment and maintenance of laboratories for such investigations by our National and States Governments? Is it not the duty and mission of a broad and wise statesmanship to meet this great want? Is not a vigorous and healthy condition of our people the very kernel of a prosperous political economy? Then why are we sleeping? Why is the medical profession so dead to its duty? Is it that a prosperous grave-yard makes plump pocket-books? No! no! It is ignorance and thoughtlessness; but, most of all, a lack of the true, humane, and noble spirit which should dignify the medical profession of a country.

A perfected condition of the human race should be the only ideal to be sought after by the medical profession. Exact and scientific government schools can alone produce this desired condition. Speculative institutions, or any such as depend either in part or in toto upon students' fees for support, can never give anything of value to the country. They may turn out a few competent physicians, but never scientifically qualified ones.

With this introduction, let us turn to the consideration of preventive inoculation once more, especially to its introduction in relation to small pox. We have said that inoculation was the transmission of the products, or cause, of disease from a diseased to a healthy individual. In relation to the prevention of small-pox, this procedure is known as *variolation.*

To repeat: variolation was, or is, the transmission of small-pox itself from diseased persons to healthy ones, by the inoculation of the products of disease themselves. This procedure was first practiced by the Chinese and East Indians, a long time before the birth of Christ; but was not inaugurated in Europe until many centuries later. Small pox itself is produced. Why, then, was it resorted to? Any one at all acquainted with epidemiological history of diseases before this century, especially in the fifteenth, sixteenth, seventeenth, and eighteenth centuries, must know what terrible misery and desolation this plague caused. Many districts, and even cities and towns of considerable extent, were almost depopulated by it.

We of to-day can scarcely form any idea of the ravages of small-pox in Europe in the past centuries; but the quotations of a few figures will at once enlighten us; and when they are compared with the same results of to-day, the benefits of vaccination become at once apparent.

Between 1866 and 1869, 140,000 people died of small-pox in the departments of Bombay and Calcutta; and in all India, in 1874–5, the deaths from this cause were estimated at 500,000; and 200,000 in 1875–6. Between the years 1711 and 1740, 65,000 people are reported to have died from small-pox in England. In 1734, two-thirds of the population of Greenland died--7,000. The deaths from this disease equalled the births at Turin, Italy, from 1796 to 1797. In Prague, Germany, the deaths were 6,686 in 1796, and 15,558 in 1799. In Prussia, 1796, 24,646. In the province of Wurtemberg, in 1790–1800, 36,933. France, from 1726 to 1754, 760,000, of which Condamine says[1] that this number of lives could have been largely saved had there been a general recourse to variolation. In Sweden, from 1749 to 1765, 144,194 deaths from small-pox were reported. In London, in sixty-seven years the deaths from this cause were 113,851; and from 1837 to 1840, 36,000.

Why was variolation resorted to? There must have been some one striking phenomenon in the clinical history of the disease which attracted even the general attention of the common people. What was it? It was the fact that the disease, in general, was "non-recurrent" in character. Outbreaks at that period of the world's history occurred almost constantly, though in some years, or at intervals, to a far more murderous degree than at others. This condition of things soon demonstrated to the people that, as a rule, those who had the disease once seldom suffered a second attack. They had abundant opportunities to test this fact. They also discovered a second fact, which was of far greater importance. They noticed that in years when the disease only appeared here and there among the people, and not as a general epidemic, that it was unusually mild in character; and also, that those catching (contagion) the disease from others generally had the small-pox in the same mild manner. In other words, as in other things in nature, they saw that "like (generally) be-

[1] Memoire sur l'inoculation de la petite-veriole, 1854.

gat like," or that a mild, a non-malignant type of small-pox in one individual generally produced the same character in another, if exposed to infection from the first. As has been intimated, the Chinese, and other Asiatic people, observed this valuable fact centuries before it received any recognition in Europe. They were then well acquainted with several facts in the history of small-pox, which were:

1. That when malignant in its first appearance, it would preserve that character among the whole population.
2. That when mild it held the same course.
3. That it was non-recurrent, as a rule.

This last was a tremendous discovery. These so-called barbarians seem to have been practical enough to endeavor to take advantage of these phenomena. Knowing the difference in the results between a malignant and mild outbreak, and that the disease did not generally recur again in the same individual, and that at no time could those that had not been diseased be safe from its ravages, they took advantage of the mild outbreaks and tried to induce the disease, at such times, in every susceptible member of the community.

The first attempts at transference were those most natural to occur to the untutored mind—non diseased persons were obliged (or did it themselves) to wrap the clothing of diseased ones about them, or the scabs were rubbed on the skin, or upon scarified or wounded places. In India, where the history of variolation seems to extend into the misty and indefinite past, it was entirely in the hands of the Brahmin priests, and hence, acquired a very wide extension. They had certain seasons of the year in which they went among the people for this purpose, who were especially prepared for it, by certain known dietetic regulations. The priest then went from hut to hut variolating the people at the door. The point of attack was the outside of the fore or upper arm. The skin was washed thoroughly and then rubbed hard with a dry cloth at the point selected, small incisions being made in it. The virus inoculated with was from the previous year and dried on cotton, which had been saturated from diseased individuals. They never used fresh material. Variolated people were subject to especial hygienic rules for a period of four weeks.

It is said that the danger from this treatment was so small that it was rare that any one died therefrom. It seldom failed to give protection. In Circassia it was resorted to in the early life of the maidens, in order to preserve them from the scars of the natural disease which would render them unsuitable for sale to the lords of the harem.

From Asia, Arabia and Northern Africa, this procedure finally extended to Europe, by the way of Turkey and Greece, but found the most bitter opposition from the physicians of the time, and the clergy, the chief objection raised being that it was trifling with the will of God to take measures to prevent anything which He caused; that small-pox was a punishment of the Lord's for the sins of humanity, and hence justly deserved. (See De Hæn and other writers of the period. Hæser, "History of Medicine." Bohn, "Handbuch de Vaccination," and other works upon small-pox).

Early in the seventeenth century, however, variolation became a "boom" (if I may be allowed a modern expression) in England, which was instigated by a courageous woman, Lady Montague, the wife of the British Ambassador at Constantinople, where she had seen the procedure and learned of its real benefits. On her return to London, in 1717, she had her six-year-old son variolated, and four years later, her only daughter. This venturesome act set all fashionable London in a whirl of excitement, and by order of the king, six persons that had been condemned to die, were pardoned on condition that they would subject themselves to inoculation, and then be exposed to small-pox. This was done, with the most positive and satisfactory results. Soon afterwards, the children of George I were inoculated, and then the treatment became more or less fashionable.

It is only justice to the fair sex to mention that, to a woman also, the Marchioness Buffalini, is due the generalization of variolation in Italy.

Variolation had two historical periods. The one, beginning, as has been shown, in the earliest days of historical record, and extending to the year 1760. This may be called the Crude Empirical period.

The second, which may be called the period of Exact Scientific Observation, began and continued to the demonstration of vaccination by Jenner, May 14, 1796.

If vaccination had its Jenner, so had variolation its Gatti, to whom the world is equally indebted, for it was almost entirely due to the acute observational powers and logical conclusions of this great Italian physician, that variolation itself became an almost safe and equally valuable prophylactic measure to vaccination. Though there seems to have been no historical connection between the work of Gatti and Jenner, still the one did prepare the way for the other, for Gatti demonstrated most conclusively the almost safe prophylactic power of variolation (to the individual inoculated), and hence, his work gave a substantial and practical foundation to vaccination.

Variolation was the first great and successful experiment in the history of pathology, as well as the very foundation of preventive inoculation. It was the first practical demonstration of the fact that non-recurrent diseases could be actually prevented by artificial inoculation; that the art of man could successfully reproduce the work of nature; that, as in nature, a mild attack of non-recurrent disease occurred, so could man, by the transmission of the disease-product, from such a person to a healthy individual, also produce the same mild disease; and, hence, induce in the inoculated individual that same immune condition which nature produced, under similar circumstances.

The name of the real European founder of such a beneficient procedure should not have been allowed to have been so profoundly buried in the archives of medical history. How many American physicians ever heard of the name of Gatti, and yet it should be kept as fresh in memory and crowned as plentifully with laurels of gratitude, as that of the ever immortal Jenner?

Regarding Gatti's relation to variolation, I will take the liberty of quoting directly from Bohn, who says: "No one penetrated more profoundly into the essentials of variolation than Gatti, and no other succeeded as well as he. Gatti is a wonderful phenomenon in the history of medicine in the past century. Nearly every page of his little book on variolation astonishes one by its richness in ideas and its advance over those ruling in medicine at the time. He was a thoroughly unprejudiced and positive observer, sharp and logical in conclusions, with a clever understanding of the nature of pathological experimentation, and knew how to give the correct answer to questions coming before him. One can have but a very superficial idea of variolation in the previous century who has not studied Gatti's work, which is characterized by its clear method, modesty and great humanity."

Gatti's instructions as to the treatment of persons to be inoculated, carry us back to our youthful days, when we had to be prepared for vaccination with cooling salts and other restrictive dietetic measures. He says: "All physicians have said that the persons to be inoculated must be, first, prepared; second, such inoculation-traumata must be made as to allow for a free outflow of the inoculated material; third, as soon as the eruption appears, the patient must be treated with all the care and assistance possible to the physician. On the contrary, I say; patients need no preparation; the physician should never provide for the outflow of the inoculated material by such wounds; and the inoculated person should be left to nature." "To prepare an individual for inoculation is the same as endeavoring to give him a certain predisposition which one considers necessary in order that the inoculated disease shall do him the least possible harm. Is there such a disposition, or can such be produced? We do not know it and hence cannot produce it. Health itself is the best condition, and this alone has one to consider in variolation. An unhealthy person must be first made well before he can be inoculated, but those who are healthy are already prepared for it. Every special preparation on the part of the physician is, however, dangerous. Only those things must be avoided which are liable to interfere with the health. All conceptions as to the preparation of the individual, all endeavors to purify or refresh the blood, or to prevent the inclination of the blood to inflammation, no soul in the world understands, and all endeavors in these directions can only lead to the injury of the individual."

Of inoculation he says: "The material with which we will inoculate must be introduced into the vascular layer of the dermis. The variola virus is so intensive that the most infinitesimal amount is as serviceable as a great mass. It is sufficient, therefore, to simply scratch the epidermis with a needle moistened with the virus, or push it gently for a short distance under the same. This way was first introduced by the inoculators, mostly women, in Greece and Italy, and gave most satisfactory results. Only the physicians have sought to replace this simple and efficacious method by more artificial ones and complicated apparatus."

The barbarism of the physicians of the time cannot be overestimated. Extensive incisions were made in the flesh and the cavity filled with thread saturated in the secretion of diseased persons, or even pieces of their filthy clothing placed therein and held in place by bandages. In other cases, a whole skein of thread would be soaked in such secretions and drawn through the flesh, as a seton. The terrible results and unfortunate complication of such methods can be well appreciated at present, and the value of Gatti to the world better understood now than ever. His motto was, "Inoculate cleanly and delicately, and all after treatment is unnecessary." It is a matter of question if that advice is not as applicable to-day as when he wrote, even with our improved methods of obtaining virus. I have seen physicians vaccinating the poorer class of school children, use the same lancet to scarrify the arm on one after the other, with no attention given to washing the arm, that in many cases were dirty enough. To my mind such a procedure is criminal carelessness, and does much to bring vaccination into evil repute and furnish just and apparently reasonable objections to its opponents. It suffices to say that Gatti's success as a variolator was phenomenal, and that his reputation extended all over Europe. So great did his skill in diagnosis become that he could almost invariably select the correct type of the disease from which to produce the same mild form in the persons inoculated. Very few pustules followed his treatment, and only slight constitutional disturbances in most cases. In fact it is due to Gatti alone that variolation became a reasonably safe procedure between the year 1760 and the introduction of vaccination by Jenner.

Objections to Variolation.—Variolation was not only resorted to as a strictly prophylactic measure, but also that the march of the disease might be hastened, and every one in a community, not previously diseased, might have it at the same time. Variolated persons were, however, as dangerous to healthy ones as those acquiring the disease in the natural manner. They had the small-pox, and hence could be the means of extending it. Therefore, while most extensively practiced, and in many cases made obligatory by law, on the outbreak of small-pox in a locality, still such places were treated as pest-centers, and all communication between them and the surrounding world was shut off until the disease was declared at an end, and the locality cleansed and disinfected, as best they knew how.

The cleverness of these early variolators cannot be overestimated. They insisted that persons to be inoculated be kept by themselves, or from general intercourse with the people for twelve to fourteen days previous to the operation, in order to avoid, as far as possible, the danger of natural infection. They discovered that early childhood was the best time to inoculate, and also that the virus mitigated somewhat in virulence when transmitted from individual to individual. They also paid strict attention to using the clear lymph before the eruption became pustulous, and even collected it in fine glass tubes for conservation. The crusts were also pulverized and so preserved. They found that certain persons were immune towards variolation, about five in one hundred, which, singularly corresponded with the per centage of immunity noticed in natural outbreaks of small-pox. It is easily to be seen that, at the best, variolation was a somewhat dangerous procedure; not only could it extend the disease, but fatality sometimes followed it, per centage being about one to one hundred. Nevertheless, it was a vast advance in prophylaxis, as can readily be seen by comparison with the death rate from the natural disease. Then again, it was found very difficult to exert a proper control over all the inoculated persons, as they were frequently scattered through the community, thus making centers of danger wherever they might be. Notwithstanding all this, there is no doubt but what it proved a great blessing to humanity, and was the means of saving thousands of lives and much misery.

While variolation was forbidden on the Continent of Europe, soon after the discovery of vaccination, it was continued in England until the year 1840, and practiced fully as much as vaccination, when it was also forbidden. It is still practiced, however, among many of the people of Asia and Africa.

Jennerism.—The word "vaccination" is derived from the Latin word "vaccina," of, or from, a cow, and expresses the transference of the disease known as the cow pox, "vaccina," from cows to man. There has been much discussion in the past as to the true nature and origin of cow-pox, without any uniformity of opinion having been arrived at. To my mind it seems as if the observers were almost entirely without ordinary powers of reflection and the ability to draw sequential conclusions. Variola, or small-pox, has been given different names, according to the

species of animals affected, as V. bovina, equina, ovina, and humana. The fact that the inoculation of an animal of a given species, from one of another species, afflicted with the variola common to it, generally protect the first from either natural infection, or the inoculation of the disease common to its species seem never to have been properly appreciated. To my mind it indicates a common origin, and that there is but one variola.

The two malignant forms are those seen in man and sheep, while in cattle and horses the disease has a benign character. Sheep have been protected against variola by vaccination from cattle, and cattle and human beings by ovination from sheep. In fact, ovination of human beings was once looked upon as fully equivalent, in preventive value, to vaccination.

As has been said, these facts of general prophylactic relations between the various variolas, surely indicate but one original form. Whether that point can ever be distinctly decided may be doubtful, but there is no doubt whatever but what we can at once deny all idiopathic attributes to variola in cattle and horses, and emphatically assert that as diseases sui generis they should have no recognition. In fact, in both cattle and horses, variola fails its one essential characteristic. It is not contagious. Transmission by means of the milkers does not constitute contagion!

The transference, inoculation, of either human or ovine variola to cattle through a continued series of these animals, soon mitigates the virulence, so that when again inoculated upon the original species, the contagious factor has been lost. But this is another most valuable pointer in the direction of the original variola. In the days of variolation the most celebrated observers all agreed that the virus of small-pox itself became mitigated on being transferred from man to man through a large number of generations, or individuals. No such phenomenon as this has ever been observed in sheep-pox. It does not lose in virulence in being passed from sheep to sheep. On the contrary, sheep-pox becomes mitigated by transference in all the animals it has been attempted on, man, cattle, rabbits, goats, and horses, but the contrary experiments have never been essayed. Vaccina has never been carried through sheep for a long series of generations, nor has small-pox, nor the eruption in horses. All this demonstrates one fact, that if every other kind of variola loses in virulence, even by transmission in its own species, (using the accepted idea of specific variola) except that of sheep, then the ovine organism provides the most suitable nutrition for the preservation of virulence alone—contagiosity, the human next, while in cattle and equines it is soon lost altogether.

As a matter ot experiment, and great pathological interest, it is important to endeavor to build up vaccina to contagiosity again in sheep, if it can be done. It is singular that observers should have looked upon the bovine and equine complications as idiopathic, when in the former it is limited almost entirely to cows, and in both is not a natural contagious disease, only extending by accidental transmission.

It is a matter of absolute certainty that vaccina either owes its origin to the human or ovine disease, most probably the former; and that it was transmitted to cows in past ages in some way by milkers, who also took care of their friends diseased with small-pox, and then the eruption was transmitted in the same way, by the milkers, from cow to cow in a herd, and in this way the disease acquired a constant degree of mitigation—in fact, absolutely lost its virulence, or contagiousness, but still retained the prophylactic principle. Right here let me make a statement which seems to have escaped notice, or expression, at least, and which is of the utmost importance in the study of preventive inoculation: What does this peculiar deportment of vaccina teach?

The very fact that the virulence, contagiousness, of small-pox having been lost in the change from variola to vaccina, shows us that the germs of non-recurrent diseases have the ability to produce two different chemical materials—one pathogenic, the other pro phylactic, and that tests of virulence have no value or control in the question of prevention.

Later on we will return to this question in detail.

It seems never to have been properly appreciated, that there is not on record one single eruption of variola in cattle or horses of a general or epizootic character. As a herd disease, under natural or free conditions, we have no record of it. This again tends to support the hypothesis that the disease in these two species found and finds its origin in the small-pox of man, rather than in the variola of sheep.

Again, as strong proof as can be brought to bear in favor of both these suppositions, and of vaccination itself, is given by the fact that, with the generalization, or compulsion of vaccination, not only has small-pox been brought under most wonderful control, but cow-pox has been almost entirely lost sight of. While there have been cases of small-pox every now and again, and sometimes quite a number in a locality, no one ever hears of a case of cow-pox, and seldom of anything causing a suspicion of the same.

Bohn says, that while vaccination had its Jenner, it was never fortunate enough to have had its Gatti, as did variolation. When I read that passage I could not but think that the worthy German had spoken in ignorance, and that vaccination had indeed had one to take part in its development; one the equal of the great Italian in every respect; one whom we should all delight to honor and to whom this country owes a monument of gratitude, if humanity does to any man, in its development on American soil. I allude to the late Dr. Henry A. Martin, of Boston, the introducer of animal vaccination into this country, a man with more sterling manhood, a more honest brain, and the most comprehensive scholar it has been my fortune to meet among the physicians of this country. In fact, I will go farther, and say, that from the stand-point of a fearless manhood and a devoted and true physician, Henry A. Martin was the only whole man I have yet met in the American medical profession. He was no trimmer; no politician; in fact, he was without policy, as every man should be where truth is concerned. Most physicians in this country are trimmers. They "trim" their professional sails to suit the theological or political breeze, or social conditions. Men are so scarce! Dr. Martin spent a great deal of money trying to find a genuine case of genuine cow-pox in this country, and during his many years of earnest study found but just one. I visited some cases of eruptions in the teats of cows with him, and have been called to many others since, but in none of them has the trouble had any close resemblance to vaccina.

It is the general opinion that Jenner discovered vaccination, and it is for that that he has been honored and credited. Jenner's discovery was the humanization of vaccina; animal vaccination, true vaccination, is of much later origin, and owes more to Martin for its generalization than to any one else, but it is not the exclusive right of any one man. Jenner's method was to take vaccina from accidentally inoculated human beings, and then to pass it indefinitely from person to person. Probably the very crusts, or scabs, used on us in our youth, were direct derivatives of those first originated by Jenner.

That cows had an eruption on their teats which could be conveyed to human beings, and which did prevent small-pox in such individuals, was known long before Jenner's time, seems to be a matter beyond all question. Even that vaccination itself was practiced in England by one Benjamin Jesty, on his own wife and child, in 1774, twenty-two years before Jenner inoculated, is equally true. That vaccina in some way was transmitted to dairy people, and prevented small-pox, was also known to the common people in Germany and other parts of Europe, but no practical use was made of the knowledge. It remained for Jenner to do this. Jenner supplied the exact and trustworthy foundation to a matter of popular belief among a certain class of people, but of which the majority had no knowledge. Jenner's work was thoroughly original. There is not a particle of evidence going to show that he knew anything about the vaccination of human beings by a few others before he attempted it. Not one of those men gave any exact study to the subject, while it is said that Jenner studied, and observed, and weighed all the facts for thirty years, before he attempted to prove his observations and fortify his conclusions by direct experiment on man. This was done on a boy named Phipps, the 14th of May, 1796. But this boy was not vaccinated from a cow, but from one Sara Nilmes, who had been accidently inoculated from a cow, being a dairy-maid. The boy resisted all attempts to transfer small-pox to him by variolation.

It is doubtful if Jenner ever resorted to vaccina itself, that is, to a diseased cow, for his original material, but invariably took his stock from human beings. This should be called Jennerism, or Jennerization.

The one striking peculiarity of this and vaccination, in contradistinction to variolation, is, that the inoculated individual is not contagious to its own species. This is a very striking example of the true meaning of the word "contagion," which, as has been discussed elsewhere, seems to be entirely beyond the comprehension of the medical profession and investigators, with but very few exceptions.

Sycophantic worshippers of Robert Koch, and even the Master himself, are respectfully referred to this example, and asked to ponder a moment that they may learn that contagion and inoculability have no necessary relation, that contagion really means, that the point or locus of the primary origin of the inficiens is a diseased individual.

As has been stated, the very strongest examples of the value of vaccination are not only the very few outbreaks of small-pox which now occur, but also the almost total disappearance of cow-pox among the cattle of those people where any exact control of the question can be looked for. Statistics, as to the value of inoculation, can have but little additional importance, still, a few are appended.

TABLE SHOWING THE EFFECTS OF VACCINATION.[1]

Period of observation. Before vac'inat'on	Period of observation. After vac'inat'on	Place of observation.	Average annual death-rate from variola to the million population. Before vaccination.	Average annual death-rate from variola to the million population. After vaccination.
1777–1806	1807–1850	Lower Austria,	2,484	340
" "	" "	Upper " and Salzburg.	1,421	501
" "	" "	Steyermark.	1,052	446
" "	" "	Illyria.	518	244
" "	1838–1850	Triest.	14,046	182
" "	1807– "	Tryat.	911	170
" "	" "	Bohemia.	2,174	215
" "	" "	Austria-Silesia.	5,812	198
" "	" "	Galicia.	1,194	676
" "	" "	Bukovina.	3,527	516
" "	1810– "	Province of East Prussia	3,321	556
1776–1780	1816– "	Poland.	1,911	743
" "	1810– "	Brandenberg.	2,181	181
" "	1816– "	Westphalia.	2,643	114
" "	" "	Rhein-Province.	908	90
1781–1805	1810– "	Berlin.	3,442	176
1780	" "	Pommerania.	1,774	130
1774–1801	" "	Sweden.	2,050	158
1751–1800	1801– "	Copenhagen.	3,128	286

The Utility of Vaccination.—"The deaths from small-pox in Germany, where there is compulsory vaccination, during the years 1887–1888, were 1.8 and 0.8 per million, respectively; while in Austria, where compulsion does not exist, the deaths were 583.7 and 540.4."—*Medical Record*, April 12, 1890.

Vaccination can be very properly termed the use of a natural method of inoculation, even though the virus is now kept up by the artificial transmission of vaccina from calf to calf. It is not the discovery of man. So far as reliable information is at hand, there is no record of the discovery and actual demonstration of the true germ of variola, though the "culture of an artificial vaccine virus, by a Russian physician, which is as effective as the genuine" vaccina, was reported in the issue of January 18, of the *Journal of the American Medical Association*. This assertion must be taken *cum grano salis*, as no mention of such a discovery seems to have been made in any of the special journals of bacteriological research. So far as my memory serves me, nothing but cocci have thus far been discovered in the eruptions of variola or vaccina. I think, when discovered, that the germ of variola will be found to be a very delicate anaërobic bacillus, and spore-bearing at that. Otherwise we cannot account for the long time which clothing, or other material, polluted by small-pox patients, retains its virulence. No non-spore-bearing organism that we now know of retains its virulence for such a length of time under such adverse nutritive conditions. I am also of the opinion that most of the endogenous germs will be found to be anaërobic.

A Few Words as to the Objections to Vaccination.—The opponents of vaccination base their opposition upon the dangers of the transmission of other diseases with which the individual may be afflicted at the time, and from whence the virus has been derived. These objections are more applicable to the transmissions from human beings to human beings than in regard to the use of true vaccina directly. To my mind, however, they will scarcely hold water when we come to consider them critically. Take, for instance, syphilis. If, as is the case, it is at present impossible to positively isolate the germ of that disease, or even to perform auto-inoculation save from a positive syphilitic lesion; if we cannot in any way discover that germ at present—how can it be possible to transmit syphilis from an arm or locus in which there is no syphilitic lesion? It seems to me almost impossible. The same is true of tuberculosis.

[1] Hirsch, Handbuch der Geographischen Pathologie.

The unpleasant complications following vaccination, when scabs were used, or from person to person directly, were due more to some organism which had gained access to the scab from outside, or to the carelessness of the inoculator regarding the cleanliness of his instrument, than to anything else.

The criminally careless manner in which vaccination is done even to day by too many inoculators, has already been noticed, and is absolutely unpardonable in these days of exact antisepsis and in general scrupulously clean surgery. In such a simple matter as this apparently is, many physicians appear to neglect precautions they deem absolutely necessary in their operations. And yet we even now frequently see erysipelatous or purulent complications follow. If the virus is properly collected, these things should never occur.

More precautions than are now used should be taken in the collection of the virus from calves. Why should all the points and instruments used not be completely sterilized? That they are not, goes beyond question.

The generally favorable results following the use of vaccine points by ordinarily careful physicians shows that the danger of unpleasant complications has been altogether overestimated and magnified by those opposing this valuable prophylaxis. Still, as such does exist, it seems as if some control over these matters should be exercised by law.

The danger of using diseased heifers, especially tuberculotic, need not exist, as I know from a long personal acquaintance with the senior and junior Dr. Martin, where every care is used in collecting the stock. The heifers should be collected some time in advance, and their temperature taken twice a day, and a general observation of their condition practiced. Any animal showing the least departure from normality in any direction, should be peremptorily rejected.

We will now for a moment give our attention to

Pasteurism.—The world owes an unpayable debt to Louis Pasteur, for to him is due, more than to any one else, the reopening of the field of experimental preventive inoculation, and in directions never before thought possible of offering any practical advantages. But even he has not touched upon the most important work, which is the prevention of the non-recurrent diseases of child-life, most especially scarlet fever, which is to-day the greatest scourge that threatens humanity in civilized countries. Pasteur is an explorer in an almost unknown sea of investigation. The "gates" are still but "ajar." They are not yet open. Many others are trying to enter. Some few can glance over the threshold, but the haven of success is yet a long way off.

While I do not accept the results of Pasteur's antirabies inoculation, I most cheerfully credit him with his earnest endeavors and the instructive value of his success in anthrax, hen-cholera and rouget in the hog. It may be well for me to state why I do not believe in Pasteur's method of preventing rabies.

1. There is not a particle of evidence to be found in the long historical record of this disease that it is non-recurrent in character. Not a single case of natural recovery in man or beast has ever been reported where the history of its origin was undoubted and the phenomena presented unquestionable. Hence, we have no natural foundation to warrant the hypothetical possibility of preventive inoculation.

2. Pasteur's statistics are not honest. Not one of those Newark children was ever bitten by a mad dog. Two were left at home, and nine or ten dogs known to have been bitten by the suspected dog were kept confined over three months. Nothing ever happened to them. While the dog was "mad" enough, it was not "rabid." It did not seek to bite any one or thing, but did bite those in its way while running. It was a case of simple frenzy from an unknown cause. Dogs are often attacked thus, without rabies having anything to do with it. Pasteur still keeps those children in his statistics, though he has been fully informed as to the true nature of the case.

3. Pasteurism in connection with rabies has become a regular mania in certain parts of Europe, especially France, and rabies or hydrophobia bears a direct relation thereto. This is easily to be seen by glancing at the statistics of rabies in Prussia, for a series of years; viz. :—

1876–7, 0; 1877–8, 6; 1878–9, 2; 1879–80, 8; 1880–1, 10; 1881–2, 6; 1882–3, 4; 1883–4, 1; 1884–5, 0; 1885–6, 2; 1886–7, 1.

All suspected or rabid dogs in Berlin are brought to the Veterinary School. This includes every dog complained of as having bitten a human being. Of this number rabies has actually resulted:

1878–9, in 5; 1879–80, 1; 1880–1, 11; 1881–2, 3; 1882–3, 1; and none since then up to June 23, 1889, when I received my report. In the whole German Empire there were but five cases of hydrophobia reported in man, in 1886; and but four in 1887.

From 1886 to 1888, there were forty cases of hydrophobia reported in Prussia; and in 1886 and '87, only nine in all in Germany.

Now let us look at the statistics given in Pasteur's Annals.

No. persons treated.	Rabies said to have been demonstrated surely.	Diagnosed by veterinarians.	Suspected.	Total.
Dec., 1888.	45	77	20	142
Jan., 1889.	32	88	22	142
Feb., "	52	90	18	160
March, "	42	95	32	169
April, "	30	122	29	181
May, "	28	149	36	213
June, "	24	115	30	169
July, "	19	111	38	173
Aug., "	15	97	33	145
Sept., "	15	80	16	111
Oct., "	19	88	16	123
Nov., "	20	99	16	135
	341	1211	307	1853

The majority of these cases came from France and the French possessions in Algeria. Does any sane person think that there is this vast difference in the prevalence of rabies in human beings between France and Germany? If so, I am not one of them. If so, no more striking example of the inefficiency of the French Government in comparison to that of Germany in its veterinary police service and guardianship of the public health, can be found.

For three years in Nebraska I vainly tried to obtain possession of an actually rabid dog, and while a vast number of dogs were reported to have been bitten by such, not one would go rabid for me after it had been so bitten. I do not deny the disease. I simply deny its prevalence to any such degree as Pasteur's statistics seem to show. I simply do not believe them.

To show how unreflectingly even educated writers will quote such statistics, the following is taken from the TIMES AND REGISTER, of Philadelphia, April 12, 1889: "Pasteurism in Cuba.—At the Bacteriological Laboratory, in Cuba, three hundred and six persons have been treated by the 'double intensive' plan. Of these, only two died, after going through the full course; a mortality of 1.63 per cent. All

these cases were bitten by dogs proved experimentally and clinically to be rabid, *or at any rate* 'suspect.' That the operations were conducted with due conservatism is indicated by the fact that only three hundred and six were inoculated out of seven hundred applicants. The opposition to Pasteur, if it still exists, has dwindled down to an infinitesimal point."

Even in these cases, not one case was known beyond question to have been bitten by an actually rabid dog, for it is admitted that "at any rate, they were 'suspects'" only. And yet the editor says: "The opposition to Pasteur, if it still exists, has dwindled down to an infinitesimal point." "Three hundred and six" persons, scared half to death on suspicion! They were "suspects" only. We can "suspect" most anything to result from treatment based on such a "suspect" foundation. The foundation of "Pasteur's Institutes" should be treated in a most "suspect" manner. They should be treated as institutions of the utmost danger to the public. Hydrophobia, or Pasteurmania, flourishes in direct proportion to their establishment.

Since my return to this country, from that sensational visit to Pasteur with the Newark boys, a very large number of such "suspects" have come to me, or have been brought to me by physicians, to obtain my opinion as to the desirability of "going to see Pasteur." Fifty-two persons is the number I have on record, but there were a few more, notably three, since I have been in Chicago.

"Mad dogs" were very "suspect," according to the story, in each case. I talked to them calmly, ridiculed their fears, and they all left me apparently comforted. Not one went to Pasteur, and I think it can be safely asserted that no hydrophobia resulted, or I should have heard of it and the papers would have been full of it long ere this. There is a vast difference between a "mad dog" and a genuine "rabid" one. The former are frequent enough, the latter are as scarce as honest original investigators in the United States.

There is still another very strong argument against Pasteur's anti-rabidism. The germ of rabies has not been discovered. This fact in itself is not very strong negatively; but when we take into consideration that rabies is a strictly wound infectious disease in optima forma; or, perhaps better, toxic rather than septic; that, as in tetanus and many forms of surgical toxæmia, the toxic producers remain at the locus traumatica, and that the poisoning of the organism takes place from there, and goes on for some time, and that constantly during that period until a certain cumulation of such material in the nervous centers has taken place—it seems to me that the Pasteur-method is self-evidently absurd. The toxic rabies' element must be in solution (the nervous tissues being only saturated with it); and hence, though very abundant perhaps, still, not in such an excessively concentrated amount, in the small piece of cord used that it can produce the effect claimed. There is altogether too much dilution. If correct in the hypothesis that the toxic producer remains local, there can be no increase in the amount of poison introduced, save as made each day. The fact that the germ remains local indicates that in the trauma is the place to look for it, as in tetanus.

Again, where can I find record of one of Pasteur's artificially rabid dogs ever having conveyed the disease to healthy ones, as is the case in the actual disease, by biting?

These objections may seem too very finely drawn to enthusiastic worshippers of Pasteur, but it may yet be found that they have more foundation than appears on their face.

These objections to Pasteur on one point do not detract, however, from the importance of his work to the world in others, in the least. What may one really call Pasteurism? The answer to this question brings us at once to the consideration of

Artificial Preventive Inoculation, which I will discuss entirely from my own point of view, and base my remarks almost wholly upon my own work and its results. Pasteurism differs as much from Jennerism as does artificial preventive inoculation from vaccination, as practiced at present. Jennerism and vaccination consist in the inoculation of the cause of the disease to be prevented thereby, bound upon or mixed up with the products of the disease; that is, as they are found in its specific lesion at a certain period of its development.

Pasteurism, or artificial preventive inoculation, or even inoculation in the most exact sense of modern experimental etiology, is quite another thing. Instead of introducing the cause mixed up with any products of disease, we isolate it therefrom, cultivate it, and, by one of several methods found suitable, so mitigate the virulent activity of the cause, that we can inoculate without serious danger to the individual thus treated.

It has become a generally accepted fact that all infectious diseases are due to a specific cause, which belongs to some specific species of microscopic vegetable life. The scientific class to which these objects belong is the fungi, their special name being bacteria, or, in common parlance, germs. It is not necessary to go into any description of the various varieties of these germs in an article of this kind; still, it is necessary that we know a little something of the manner of action of that class in which we are momentarily especially interested.

The diseases of animals in which Pasteur has been, beyond question, successful in preventing natural infection by his method of inoculation, the names of which have already been given, and to which may be added swine plague, the yellow fever, and Texas fever in cattle, as well as typhoid fever, are all what are known as forms of septicæmia, or blood poison; the specific poison in each case being the direct result of certain unknown physiologic action on the part of the specific germ, which causes each of these diseases. All these diseases have also another attribute in common, viz.: they are extra-organismal in origin; that is, the place of primary development of the specific germ which causes each of these diseases is outside the animal organism, or in the earth or earthy material.

Though he has never to my knowledge stated it, still I think Pasteur should be credited with recognizing the fact that cow-pox was but mitigated smallpox, rendered, as has been said, non-malignant in character by successive generations of transmission from cow to cow in an accidental and unintentional manner. Pasteur endeavors to do this same thing intelligently. He but repeated the lesson thus learned in his first attempts at mitigating the action of the germs of anthrax, hen-cholera, and rouget by experimental inoculation in various species of animals, and he found that while in some species a given germ acquired even more virulence than it possessed when taken from an animal in which it had caused the natural disease, and kept on increasing in virulence for a time as he passed it from animal to animal of a certain species, still, on the other hand, the same procedure in another species of animal, carried on

through a long series, not only caused the germ to lose in virulence, but after a time they acquired a certain standard of mildness, and could be safely used for inoculation.

This was imitating the results in small-pox. Pasteur went further! Such a method as the above is open to the very serious objection that, not only is an almost unlimited number of experimental animals necessary, but the expense would finally be such as to decidedly interfere with any practical benefits resulting. This led Pasteur and others to seek similar results in entirely different directions. They experimented in many ways, but the continued exposure of artificial culture of given germs to a certain degree of temperature, or their development in from two to two and one-half pressures of oxygen for a certain time, have given the best and most trustworthy results. A most singular fact came from these experiments, which was that when once a certain desired degree of mitigated virulence had been obtained by either of these methods, that cultivation of the same germs could then be carried on in the ordinary room temperature for an indefinite period, each succeeding generation retaining the same degree of mitigated virulence as the previous one and the mother culture. The result has shown that a preventive virus against anthrax, rouget, and hen cholera has been successfully made by these investigators, by one or the other of methods mentioned.

For a very valuable account of Chauveau's experiments in mitigating the virulence of bacillus anthracis in this way, see TIMES AND REGISTER, Philadelphia, April, 1890.

Based largely upon the teachings and work of Pasteur nearly all investigators in this important field of research have been of the idea, and generally are at present, that a preventive virus can be obtained by the simple mitigation of the virulence of a germ of a naturally non-recurrent disease by artificial cultivation under certain conditions of heat, or oxygen pressure, or some other method, so that the introduction of such a culture in a given amount, produces simply a mild and non-fatal form of disease.

The practical results of inoculation, or vaccination, seem to confirm this idea. For myself, I was also of the same opinion, until it was completely shattered by most extensive experiences, and apparently positive experimental results.

It is but justice to myself to inform my colleagues, both investigators and physicians, that this business of "preventive inoculation" in swine-plague is not of my own choosing; that I am bitterly opposed to it; that I feel it is disgraceful in one being, or making any pretensions of being, a scientific investigator; that I think and know that all and every result of original research should be the property of the people; and I can truly say that, had I not the remote hope that the rewards of this distasteful business may be such as to enable me to build, equip, and plentifully endow a laboratory and hospitals for the investigation of the non-recurring diseases of child life, where the poorest genius can have free opportunity to study and be educated, or pursue original investigations, that I would have nothing to do with it. I would not continue it for a moment, to enjoy even a handsome business income, but I hope the end desired may be attained, and that the medical profession will eventually justify the unprofessional means on account of the worth of the object attempted.

Self respect forced me to resign my position as investigator in Nebraska, on account of three years of uninterrupted intrigue, and unlimited abuse and opposition excited against me by the Agricultural Department at Washington. No other course was open to me.

This inoculation against swine-plague is a matter of more importance to the advancement of original research in this country than at first may appear to the casual observer. I can safely assert that so much success has been attained, that it can no longer be open to a single doubt. Its actual practical value can only be estimated by large and extensive experiences continued for several years. Its present value and interest is, however, mainly scientific.

Having sufficiently demonstrated that inoculation will prevent swine-plague, as Pasteur's work has been the initiative incentive to all investigations in this direction, so should this result have the same value in this country, and be a stimulus to the most energetic and exact endeavors to develop protective inoculation against other non-recurrent diseases in our live stock, but even more particularly those of our own species. If my work only succeeds in putting this stimulus in such activity that work will be inaugurated and earnestly continued, and lead to the establishment of National and State laboratories, all that I have labored for will be attained, and my life be pronounced a success. My interest is far more in inspiring and inaugurating true original research in this country, than in my personal success as an investigator. If the last can only lead to the first then I am satisfied.

In this paper I unfortunately can only place before the world my failures, as in justice to my financial supporter I cannot publish the methods by which I have obtained success, much as it is my desire to, but something valuable can, I hope, be learned from my failures.

As has been said, I began the search for preventive inoculation in swine-plague on the principle of mitigation of virulence, so as to obtain a virus that would not seriously disturb the hogs, and yet render them immune from disease.

At this time and place I will simply reassert that this has been done, and in so many places and in so many hundreds of animals, that the fact is beyond the possibility of doubt.

From this non-virulent point of view the first desideratum is to obtain a virus, or culture, of a constant degree of mild virulence. As inferred above, various methods have been empirically discovered. Pasteur, as has been seen, used certain forms of animal life at first, carrying the virus from one to another of a given species in which it slowly lost in virulence until it acquired a desired benignity. He also found that an augmentation of virulence, until it acquired an equal constance in malignity, could be produced in some other species of animals. This was too expensive a method to be practiced. He then found that the exposure of the cultures to a certain degree of heat for a certain time would also produce the desired mitigation. Others have proven these observations to be trustworthy. Chauveau works by the oxygen pressure method, and has obtained the same result. We need not discuss others.

The great fact is that once the desired degree of mitigation has been obtained in any virus, that the virus thus obtained can be then cultivated in ordinary media (fluid) outside of those conditions, and that the virus thus obtained will retain this constant degree of mitigated virulence for a long time. If a spore-bearing germ, this condition may be retained almost indefinitely, but in non-spore-bearing organisms it is not so reliably constant. The first thing, then,

was to obtain a constancy of virulence in the desired direction.

I have never thought that either of the above methods was strictly scientific. They are too artificial; hence, as far as swine-plague is concerned, I have endeavored to produce the same result by a more natural procedure. That is, by chemical nutrition, for this virulence is entirely a physiological-chemical result, and absolutely dependent upon the nutritive qualities of the media in which germs develop. It has been said that, once a desired degree of mitigation was arrived at, it could be retained in artificial cultures for an indefinite period.

With regard to the swine-plague germ, other investigators have not only declared this to be impossible, but also unnecessary. I shall show that it can be successfully done, but cannot, unfortunately, tell how, for reasons previously given. I think I shall also be able to show that, in a certain sense, no great result has been obtained when we have done it.

Attention has been called to the fact that others could not obtain this constancy in mitigated virulence, and, furthermore, that it was unnecessary in swine-plague.

In a paper on "Hog-Cholera," which is the disease I call "Swine-Plague," one of these diletants says: "I shall not go into the details of preventive measures in this paper. * * * What you are doubtless interested in, is the new points which may have been brought out by our investigations. The most interesting of these is our attempt to confer immunity by inoculation. We soon found that there was no indication for attenuating the virus for this purpose, because the strongest virus might be introduced hypodermically, with impunity, in considerable doses. Now, as the stronger a virus is, the higher the degree of immunity it produces, you can see that there is every reason for using fresh unattenuated cultures. We made many experiments, and found that hogs might safely be inoculated with one-quarter to one-half a ccm. for the first dose, and that the second dose might be safely increased to two to three ccms., showing that some degree of immunity had been gained. Those twice inoculated, however, were still unable to stand exposure in an infected pen, and could not be fed the virus without fatal results."—*Journal of Comparative Medicine.* Philadelphia, Pa., April, 1888, Vol. IX, p. 149.

Let us consider these statements a little. First, not only their general tenor, but that of all the subsequent publications of the same author, show, according to him, that swine-plague cannot be prevented by inoculation. It is interesting to read, in this connection, what the same authority said in 1883, five years previous to the above, when, as can be shown, he had no idea what the germ of swine-plague was; but, supporting himself on the authority of Pasteur, he asserted a micro-coccus to be that cause. Swine-plague was not discovered in France until 1887.

He said: "Our investigations have shown that the plague is a non recurrent fever, and that the germs might be cultivated; they have even proved that these germs may be made to lose their virulent qualities and produce a mild infection. Surely we have here sufficient evidence to show that a reliable vaccine might be easily prepared if we carried our investigation but a little way farther.

"Mr. Pasteur has recently confirmed (?) our American investigations in a very complete manner. He shows that the disease is produced by a micro coccus; that it is non-recurrent; that the virus may be attenuated, and protected from subsequent attacks, and he promises a vaccine by spring."—Report Department of Agriculture. 1883, page 57.

That the above was made out of whole cloth is shown by the following:

First. A micro-coccus is not the cause of swine-plague.

Second. The government knew of only one swine-plague until 1886, and a coccus is not the cause of either hog-cholera, or the nondescript disease it now calls swine-plague.

Third. Pasteur studied "rouget," and not swine-plague.

Fourth. A bacillus has been proven to be the cause of "rouget," and not a micro-coccus.

Fifth. Pasteur's virus against rouget does prevent.

Sixth. If in 1883, this person said: "Surely we had sufficient evidence to show that a reliable virus might be easily prepared," what has become of that evidence since then? It is singular that my success in preventive inoculation should dispel it as easily as the morning sun does the fog of the prairie.

As to preventive inoculation in swine-plague I will quote the following only from my address before the Live-Stock Breeders' Association, of Nebraska, February last:

"My only sin has been that I forestalled the ambition of the government, which being one 'for the people,' we might suppose would be an act to receive kind endorsement rather than the most bitter and fanatical opposition.

"Even that 'Board of Inquiry' admitted that inoculated hogs stood the tests they were exposed to better than hogs which had recovered from a natural outbreak.

"Professor Burrill, in a moment of unprejudiced honesty, wrote me that 'none stood the tests so well as the Nebraska hogs.'

"With these facts publicly announced to those most and directly interested, a political neophyte, in a recent publication, claims that he has a letter from the president of that 'Board of Inquiry,' Dr. Shakespeare, in which the latter says that the Nebraska hogs were equally sick, when put in a diseased herd, with a lot of healthy ones also put in the same herd. Then why did not Dr. Shakespeare tell the farmers that in the published report?

"Was it not the sacred duty which he owed to science and to every hog raiser in this country?

"On the contrary, that part of the report to which he had his name attached says, without any reservation whatever, that the Nebraska hogs stood the tests better than those naturally recovered.

"What more then, can you ask?

"Does not that assertion of Dr. Shakespeare's, indorsed by Prof. Burrill's signature, and by his later letter, not only emphasize and confirm the reiterated statement of the government, that the disease is 'non-recurrent?'

"If the inoculated hogs stood the tests better than recovered hogs from a naturally 'non-recurrence' disease, then art beats nature, and inoculation has proven to be a reliable fact, one established beyond question, no matter if an occasional failure does occur, as it has in my practice since I left you, and since I have had to entrust the business to other hands, and, from the very opposition of the government, resort to an undue precaution, which, had I remained here, would never have been necessary."

To the above I add one testimonial from a practical farmer, contributed to the *Breeder's Gazette*, of April 2, 1890:

"Mr. R. C. Fulton, Taylorville, Ill., writes: 'The reports in your issue of March 19, by C. A. Cantine, A. R. Hubbard, Marion Ryman, on inoculation, remind me that it is surely due Dr. F. S. Billings, also the farming world, that I should make report of my experience with two inoculated boars sent me for the purpose of proving, so far as possible, that inoculation is a preventive. The pair of hogs were received about February 8, and at once placed in the lot of about one acre, adjoining which were breeding pens for six sows. In the lot and pens named I had lost forty head of hogs, and yet had a few left when the boars were placed in pens. These hogs have continuously bedded on the same litter, and in the same pen where eight had laid while sick and dying. I have them fed on ear corn only, and that was strewn on the excrement and cleanings from other infected pens, and for drink they have had slough water, which catches the waste of barn, lot and pens above named. This I consider a crucial test, and I felt nothing short of that would satisfy even my unprejudiced mind as to the prevention of swine-plague by inoculation. Many of my neighbors have looked on incredulously, and I was even laughed at by my more verdant ones; but the laugh ceased; incredulity has vanished, and all admit that something prevented, and what else but inoculation? For my herds have been reduced or swept away before. In conclusion, the hogs named are doing fine on the same ground where forty died.'"

Scientifically speaking, this is sufficient evidence to prove the fact.

Now, as to that irresponsible statement that "we soon found that there was no indication for attenuating the virus, because the strongest virus might be induced with impunity in considerable doses."

Whether one ccm. is to be looked upon as a "considerable dose" or not I will not attempt to decide, but that I can select an outbreak of swine-plague from which that dose, in the first generation of cultivation, will produce fatal effects, as well as that inoculation will prevent, is shown by the following:

In December, 1888, I desired to test a number of inoculated hogs for a special purpose. At the State Penitentiary there raged one of the most malignant outbreaks on record. By malignant I mean acutely fatal, not prolonged, and still fatal in its course. From one of these hogs I obtained a culture and inoculated, in the flank, seventeen healthy uninoculated hogs, and twenty inoculated ones, with one ccm. of the first culture, Fifteen of the uninoculated pigs died, and all were sick. The others were not affected at all. Cultures from the original penitentiary hog, and from several of those which died, with full autopsy notes, were sent to Professor Welch, of Johns Hopkins.

This, then, shows that "considerable doses" of the strongest virus cannot be used with impunity, and also that immunity can be produced by mitigated cultures, as none of the inoculated hogs were made seriously ill during their treatment.

The germ of swine-plague varies very much in acuteness of virulence, as every one knows, and this is shown in nearly every outbreak one studies. Rabbits have been considered to be suitable animals to control this point, of which one observer says: "Rabbits die from hog-cholera inoculations in six to nine days."—*Journal Com. Med.*, e. c., p. 133. On this point Welch says: "The duration of life after inoculation of rabbits is usually from five to fourteen days, and it may be even longer."—*Journal Com. Med.*, Vol. I, 1890, p. 52. "Rabbits when inoculated die usually in six to eight days."—*Bulletin, Johns Hopkins University*, December, 1889.

In an attack upon preventive inoculation, made by a tool of the government before the Kansas Board of Agriculture, we find the following interesting passages:

1. "Prevention by inoculation depends upon the well-known principle that one attack of a contagious disease generally protects the individual from the subsequent attacks of that contagion. All individuals, however, are not protected in this way from any disease, and in many cases the protection only lasts for a short period."

Comment is unnecessary.

2. "The dose is not the only factor which must be considered when inoculating. The strength of the virus varies in different outbreaks of the disease so much that the dose, which would be perfectly harmless in one case, would be as certainly fatal in another. As there is no reliable test of the strength of virus, but experiments upon hogs, and as the strength varies during artificial cultivation, you will see that it is next to impossible to accurately know the strength of the virus he (Billings) is using."

3. "Inoculation in practice consists in injecting under the skin as much of the strong virus of hog-cholera as can be safely given without producing a fatal type of disease. It must be remembered that inoculation is very different from vaccination. The virus used in inoculation is the same as is found in hogs dying of the plague, while in vaccination a virus is used so weakened that it cannot cause a fatal disease. No method of vaccination has yet been introduced for hog cholera. It is inoculation that is being advertised as a preventive for hog-cholera, and it is a question of the size of the dose whether the disturbance produced in the hog's body is mild or fatal in character."

From all that has been quoted from these authorities it is evident that they have no idea of a constancy of virulence in the swine-plague bacilli, or that such can be obtained.

It has already been stated that in Pasteur's and other methods of mitigation, when a certain desired degree of mitigated virulence had been once obtained, cultures of the same degree could be then carried on for an indefinite period.

This led me to the study of the following questions:

1. Is there a mitigated or non-fatal degree of virulence to be found in natural outbreaks? or, in other words, can a vaccine virus be at once obtained from a natural outbreak? This I proved to be an unquestionable fact, easy of demonstration at any time, though it took much study and very close observation of the relation of certain pathological lesions to the desired degree of virulence to obtain the knowledge, and some experimentation to prove it.

2. Can this or any natural degree of virulence be retained indefinitely by any method of artificial cultivation by nutritive measures alone?

3. Can this micro-organism be fed up and down in virulence by changes in nutrition alone?

4. Can a direct proportional relation be established between a certain dose of virus of known virulence in small animals and a safe or preventive dose of the same virus in hogs?

The three last questions have all been solved in a most exact and satisfactory manner.

It is possible for me to almost invariably select an outbreak of swine-plague from which a given dose of the first cultivation will kill a rabbit on subcutane-

ous inoculation in approximately four days, and, by a very slight variation in nutrition, to bring and retain such a virus to this point of virulence in a very few generations.

In order to demonstrate this point, I will give the result with several viruses:

VIRUS NO. 1.			VIRUS NO. 2. †		
Generation.	Date of inoculation.	Killing time, days.	Generation.	Date of inoculation.	Killing time, days.
1	Sep. 28 1888.	4	1	Sep. 28, 1888.	4
35	Jan. 5, 1889.	4	77	Oct. 5, 1889.	4
76	Oct. 2, "	5	78	" 13, "	3½
78	" 16, "	4	79	" 16, "	4
79	" 23, "	4	80	" 23, "	3½
80	" 30, "	3½	81	" 30, "	3½
81	Nov. 10, "	4	82	Nov. 10, "	3½
82	" 17, "	3½	83	" 17, "	3½
83	" 25, "	4	84	" 25, "	3½
84	Dec. 2, "	4	85	Dec. 4, "	5
85	" 9, "	4	86	" 11, "	3¾
90	Jan. 26, 1890.	4	90	Jan. 10, 1890.	3¾
93	Feb. 22, "	3½	95	Feb. 22, "	3½
95	Mar. 9, "	2¾			
98	" 31, "	6*			
99	Apr 6, "	4			
100	" 13, "	4			
101	" 20, "	4			

* This rabbit had survived a very delicate inoculation, made on 16th of March.

† From an outbreak on another farm.

VIRUS NO. 3.			VIRUS NO. 4.		
Generation.	Date of inoculation.	Killing time, days.	Generation.	Date of inoculation.	Killing time, days.
1	Oct. 2, 1889.	4½	1	Oct. 3, 1889.	3
2	" 9, "	3	2	" 9, "	4
3	" 16, "	3	3	" 16, "	4
4	" 23, "	4	4	" 23, "	4
5	" 30, "	4	5	" 30, "	3½
6	Nov. 10, "	3½	6	Nov. 10, "	4
7	" 17, "	3½	7	" 17, "	3
8	" 25, "	4	12	Dec. 24, "	3¾
9	Dec. 4, "	3¾	13	Jan. 1, 1890.	3¾
10	" 11, "	3½	16	" 26, "	3¾
11	" 18, "	3½	20	Mar. 2, "	3½
15	Jan. 19, 1890.	3½	21	" 9, "	3
19	Feb. 22, "	3½	24	" 31, "	3¾

VIRUS NO. 5.			VIRUS NO. 6.		
Generation.	Date of inoculation.	Killing time, days.	Generation.	Date of inoculation.	Killing time, days.
1	Dec. 19, 1889.	2½	1	Jan 30, 1890.	2¾
2	" 24, "	2½	2	Feb. 2, "	2½
3	Jan, 1, 1890.	4	4	" 22, "	3½
4	" 10, "	4	6	Mar. 9, "	4
5	" 19, "	4	9	" 31, "	4
6	" 26, "	4	10	Apr. 6, "	4
8	Feb. 22, "	3½	11	" 13, "	4
13	Mar. 31, "	4½			

From the first generation of this virus No. 5, seven healthy hogs received one cubic centimeter in the inside of the thigh subcutaneously; two of these died, which were closely confined, within ten days; the others were at first loosely confined, and showed no ill effects; but after the fifteenth day they were changed to the closest confinement possible, and all died between the thirtieth and thirty-fifth days; while five others, which were given plenty of room to roam about, and which received the same dose, all lived. This experiment was made to demonstrate, if possible, a certain well known fact of practical experience.

It has always been told me that if such hogs were shipped, that the death-rate would be checked, or even stopped, while on the cars; and it has also become more or less current among farmers that to put sick hogs on a wagon and rattle them over frozen and rough ground was a good thing to do. In some few cases evil results have followed inoculation. Some few hogs have either died after a prolonged illness or become somewhat stunted; while others, inoculated with the same dose of the same virus, have shown no ill effect. It therefore becomes an interesting question to discover why this should occur in one case, and not in a great many others.

After very careful inquiry it was discovered that, where ill effects followed inoculation, the animals were kept very closely confined, and had not room enough to move around, and that this was the cause; or, in other words, insufficient movement to stimulate the circulation. A very striking example of this occurred in two bunches of hogs inoculated at the same time for a gentleman who is a personal friend and a great advocate of inoculation. At his house were twenty-five hogs in a small pen, while in a field, running with his cattle, were about one hundred and twenty-five others. Those in the small pen had a prolonged and very severe attack of swine-plague in consequence of the inoculation, though none died; while the one hundred and twenty-five in the field showed no ill effects whatever.

Exactly the same thing occurs in typhoid fever in man. The patient has recovered from his typhoid, and the physician congratulates him; the next day he is cyanotic, rapid breathing is present, and pneumonia develops: owing to stagnation of the circulation, and the reflow, or pressure, of the blood to the point of least resistance, which is the lungs.

The above tables show that a standard of virulent activity can be produced in cultivations of the swine-plague germs simply by proper nutrition. They further show that not only the selection of material from a natural outbreak can at once provide a preventive virus; but also that, in successive cultivations for generations, this standard can be retained at a greater degree of virulence than other observers claim to have found in natural outbreaks by their controls in rabbits.

Now I must positively, and against every and any assertion to the contrary, assert that I can prevent swine-plague by inoculation. Were I not bound as I am, I would give records of other viruses possessing no virulence whatever, which have produced and still produce an absolutely immune condition in nearly every hog inoculated.

To discover this fact has cost an immense amount of experimentation and a large amount of money. There is one difficulty about it which cannot be overcome. While the virulence of a culture can accurately be tested on small animals, and the exact relation be established between that virulence and a safe dose in the animals in which a given non-recurrent disease occurs naturally, we have no means of testing the preventive properties of a virus, except the results in inoculated animals of the species in which the disease naturally occurs, and this takes a long time and a great many inoculations.

When I began this work, I thought that a test of virulence, with a proper regulation of the proportional dose, was all that was necessary; now I know that a test of virulence with such proportional control is of no value whatever with reference to the protecting power of a given virus. I know this by an experience in over one thousand five hundred hogs. Either one of the six viruses named above will kill a hog by subcutaneous inoculation in sufficient doses, but more reliably by feeding experiments; yet not a single one of them will protect a hog an iota against the cholera; while a germ virus, without any virulence whatever, even by forced feeding, will protect securely and almost invariably, in single doses of one cubic centimeter.

This assertion is obviously contradictory to all previous experiences, and yet, if one stops to think a moment, supported by the most trustworthy experience which we have.

There is no question that, under certain circumstances, using a natural virus, we must reduce the virulence to a certain degree in order to produce a fatal attack by inoculation; but, on the other side, we do not need to have a virus possessing any virulence whatever to produce immunity in a non-recurrent disease.

Vaccination gives the best possible example of the point we desire to call attention to. While in variolation small-pox itself was transmitted, and the variolated person was as much a source of contagion as one having the natural small-pox, the vaccinated individual is absolutely non-dangerous to those coming in relation therewith.

What has been lost?

Certainly something; and the practical evidence conclusively demonstrates that it must have been, or is, that peculiar element of the germ, the contagion, which rendered the variolated person dangerous while the vaccinated one is not.

It is a question of nutrition only, which can be demonstrated by exact experimentation if we only try.

The bovine organism must offer certain nutritive conditions which, in some unknown way, rob the micro-organismal cause of small-pox of its contagious (small-pox) producing qualities, while the preventive one is retained in optima forma.

The same thing can be done with the germ of swine-plague, but to no such degree of absolute certainty as nature or accident has accomplished in vaccina. While it is the easiest possible matter to feed the germ of swine-plague up and down in virulence, to make it extra malignant, or rob it of that quality altogether by changes in the chemical nutrient, it is a most difficult thing to retain the preventive physiological qualities of these germs. Sometimes it can be done for months, and again they are lost in a few generations; but we have no control over these matters except the practical tests. None of the small animals which I have tried can be easily or successfully rendered immune against swine-plague. Rabbits and guinea-pigs can be rendered somewhat immune by repeated inoculations of small quantities of virus; but, so far, I have been unable to render them absolutely so. Pigeons vary; but no more artificial immunity can be produced in them than they naturally have, as will be shown later, and at another time.

As has been repeatedly mentioned, a test or control of virulence has nothing whatever to do with the protective power of a virus. It simply shows that it is safe to use, and that we can establish the point of safety by experiment.

This shows that we have all been working on an erroneous basis. Prevention has no relation to specific virulence. Others have demonstrated the same fact.

In THE TIMES AND REGISTER, Philadelphia, of April 12 and 19, were published a series of most interesting experiments by Chauveau, the most eminent and conservative experimenter in France, in which he demonstrates it in connection with bacillus anthracis. Chauveau says,[1] that "Energetic vaccinal (preventive) properties have been discovered in a pathogenic germ (B. anthracis) not only attenuated in its virulence, but systematically deprived of all infectious properties—rendered so neutral and inactive that we were forced to ask ourselves if this transformed microbe had not become a new species."

"Cultures of bacillus anthracis in this condition can then be carried on in the ordinary atmosphere."

Chauveau conclusively shows that bacillus anthracis produces two chemical elements in its bio-physiological development; the one toxic, or specifically disease-producing, the other having exclusively preventive properties; and that, by cultivation in two to two and one-half pressures of oxygen, the toxic properties may be, or are, lost, while the preventive are retained. Or, to use his own words, "In fact, in my experiments the vaccine property of the transformed bacillus anthracis is so active, and so well survives the loss of all infectious properties, that we seem authorized to consider these two properties as being absolutely independent of each other, and as each belonging to a special product of microbe life."

Another point in evidence of this fact is this: if we take a culture of the germ of swine-plague which has experimentally been shown to actively possess both of these preventive and toxic, or disease-producing, qualities, by actual experimentation, and freeze it solidly for several days, and then inoculate or feed hogs with it, we will find that, while it has retained its toxic, or disease-producing, properties without mitigation, it has entirely lost its preventive property.

That bacillus anthracis has the power of producing these two essentially different chemical elements has also been well shown by Heuppe and Wood.

Though I sometimes criticise the conclusions of my friend Hueppe, still I think him one of the most competent and reliable patho-bacteriologists living, especially in regard to physiologico-chemical attributes of pathogenic bacteria. In the publication mentioned Hueppe and Wood describe a saprophytic bacillus absolutely without virulent qualities, which, in every method of artificial cultivation, or under the microscope, bore such close resemblance to B. anthracis that it could not be distinguished from that organism. It is a well-known fact that all previous experimenters had not been able to render mice immune to anthrax by any system of preventive inoculation; and yet, with this absolutely non-virulent germ, Heuppe and Wood were successful in rendering these most susceptible animals immune to extremely virulent cultures of bacillus anthracis.

Now, it is neither logical nor reasonable to suppose that this was any other micro-organism than bacillus anthracis. It was derived from the earth possessing exactly the attributes described by these observers. In this case the nutritive conditions in the earth had naturally produced exactly the same physiological-chemical conditions in bacillus anthracis which Chauveau has conclusively demonstrated to be possible of production by the cultivation of the same germ under certain degrees of oxygen pressure, and I have been able to do with the swine-plague germ by chemical nutrition, the only difference being that while I have, as it were, "gone it blind," not being a chemist, and accidentally hit on a means of arriving at a certain practical result by innumerable changes in chemical nutrition, until I have empirically arrived at a method of obtaining a certain result for an uncertain length of time, Chauveau has found a definite means of obtaining it with reference to the bacillus anthracis.

That the chemical nutrition method is the one by which practical results will eventually be obtained goes without question; but it remains for the chemist alone to really discover and perfect it.

[1] The original appeared in *Archives Med. Experimentale*, March, 1889.

The discovery of Hueppe and Wood regarding bacillus anthracis finds its confirmation in many diseases of extra-organismal origin, and explains that heretofore mysterious condition known as "acclimatization" in diseases of this character: such as yellow fever, Southern cattle plague, etc. In these cases the specific germs, in a saprophytic or non-malignant condition, must have gained entrance to the individuals possessing this acclimatization immunity while they possessed this prophylactic power, though not possessing the toxic or disease producing.

That all these exogenous germs are, or can be, changed to saprophytic must be self-evident; and that their toxic or disease-producing property is acquired by peculiar nutritive conditions in the soil which they naturally inhabit seems also equally clear. In fact, their acquisition of disease-producing qualities is dependent upon the prolonged saturation of the ground with the excreta of animal life or the decayed products of animal tissues. The delicacy of the action of these germs in different nutritive media is so little understood, and has enjoyed so little experimentation, especially chemical investigation, that we really know very little about it; yet it is the open field of original research which will eventually lead to success, and from which we can only hope for decidedly practical results.

Why the swine plague virus should lose its virulent properties in cattle, or even when cultivated in sterilized cattle urine, is a question no one can decide at present. Why the germ of the corn-fodder disease should not be toxic to animals while still manifesting its presence by specific lesions in green and growing corn, and only become toxic when and after the leaves begin to wither and the chlorophyl suffers chemical changes, are also questions of a nutritive nature which can only be elucidated by the most exact chemical investigations.

At one time in their existence all these organisms are saprophytic, and again they become pathogenically toxic, all of which is determined by the material they develop in.

Before closing, I desire to say a word in relation to fluid cultivating media. When the study of bacteriology first began, these were the only media we had, and it was next to impossible to obtain perfectly pure cultures for the want of a reliable means of isolation. Koch supplied us with this means, but, in doing so, led to an altogether too great neglect of fluid media, which has retarded investigation to a degree not sufficiently estimated by the majority of investigators.

Once it was thought that the only way by which pure cultures could be legitimately attained was by the isolation method offered by the solid media on plates, according to Koch. Now we know that, in the majority of cases, if we inoculate a susceptible animal with material containing a variety of micro-organism derived from an animal having a specific disease, in general, the germ of the latter only will develop; and that, from the specific lesions, we can generally obtain the specific germ in a pure condition if we take the necessary precautions. It is singular that the lesson of this experimental experience has not made more of an impression upon investigators. Why is not the same rule applicable to animals or individuals afflicted with the natural diseases? In other words, why not pathologically decide which is the specific lesion in a given disease, and by experience discover the period in which it is truly specific, and then make cultures directly from it at that time? This point decided, pure fluid cultures can be almost as easily and surely obtained in septicæmic diseases as by recourse to solid media.

In swine-plague, Southern cattle-plague, and the cornstalk disease, all septicæmic in character, I have invariably used fluid cultures in connection with the solid, and with equally successful results as to purity.

The virus No. 1, to which attention has been called, is now in its one hundred and second generation: that is, it has been carried on successfully through about one hundred fluid cultures without one single pollution occurring during all that time. We must resort to fluid cultures if we will be successful in preventive inoculation, for this procedure is one, as well as virulent inoculation, which depends entirely upon the chemical food offered, and only with fluid media can we experiment in that direction or prepare the way for the chemist. Germs which soon lose their virulence on or in solid media retain the same indefinitely in appropriate fluid cultures. Starting with a pure culture, there is no more danger of pollution in the transference from fluid media to the same than in solid media, if one is rapid and dexterous in his manipulations. It is simply a question of strict sterilization and rapid dexterity which gives satisfactory results in either case.

Let me again say that it is only from nutritive experimentation with chemical fluid media that we can arrive at any satisfactory results.

THE REMOVAL OF A DISLOCATED CRYSTALLINE LENS WITH THE AGNEW BIDENT.[1]

By C. B. BLUBAUGH, M.D.,
PARKSBURG, W. VA.

THE crystalline lens, as we know, may be dislocated from disease or violence, or may occur as a congenital condition. It may be only partially dislocated; may swing back and forth, as on a hinge, or may fall entirely back into the vitreous, or be displaced into the anterior chamber; in the latter position it may be extracted by a peripheral corneal cut, though it is best here to use the bident to prevent the lines slipping back through the pupil and into the vitreous. When displaced into the vitreous, we are advised to leave the eye alone, but in following such advice we frequently find, especially in taumatic luxations, that cyclo-choroiditis, hyalitis or detached vetina will ensue, when we are vaguely told to meet these grave complications as the exigencies of the case demand. To remove a dislocated lens from the vitreous, and save the integrity of the eye, is more difficult than any operation in opthalmic surgery, and in describing the bident operation, my best plan will be to cite to you the case which gave birth to the instrument in the fertile brain of the late Dr. C. R. Agnew. It was that of a young man, aged twenty-seven, who had been blind in his right eye from earliest infancy. The form and general appearance of the exterior of the eye were normal, the lens was so loose that it moved to and fro with a quick volatile motion, though suspended on the temporal side by a narrow, hinge-like attachment of the suspensory ligament. Believing that the ordinary methods for the removal of a lens dislocated into the vitreous humor would fail, the procedure which is now offered for consideration was devised. The pupil being first dilated with atropia, the patient was placed on his back and etherized as thoroughly as possible. Wish-

[1] Read before the West Virgina State Medical Society, at Wheeling, W.Va., June, 1890.

ing to have analgesia of the eye, a few drops of a 4 per cent. solution of hydro-chlorate of cocaine were instilled upon the conjunctival surface. The eye-lids were next opened with a Gräfe's speculum and the eye fixed by grasping the tissues between the insertion of the inferior vectus and the margin of the cornea with ordinary fixation forceps. Looking in through the pupil, the dislocated lens could just be discerned lying far to the temporal side of the vitreous chamber in the ciliary region. The bident was now brought into use. It consists of two ordinary, fine, straight, delicately pointed, cataract needles, about six-eighths of an inch long, fixed parallel at a distance a little less than an eighth of an inch apart. These needles are united at their proximal ends by a projection which is flat, and otherwise so shaped and roughened as to be adapted to the grasp of a beak of a holder, such as the Sand's needle-holder. Having mounted the bident in a holder, with the thumb-catch of the latter uppermost, and having the eye-ball firmly fixed, as previously stated, the temporal aspect of the ball was penetrated at a point just far enough to enter the vitreous chamber without wounding the iris or touching the dislocated lens, till the bident had penetrated the vitreous humor to a point a little to the temporal side of its centre, the handle of the holder then being depressed, the points of the bident described an arc forwards, the lens was caught on the bident, as a pea might be lifted on a two-tine fork, and brought forward through the pupil and into the anterior chamber. Then, the bident being pushed on, its points emerged on the nasal side of the eye-ball close behind, but avoiding, the iris. The neat completion of the wound of exit was insured by placing the end of the forefinger of the left hand upon the surface of the eye-ball at the point to which the bident was being directed. In this manner, the scleral conjunctiva being pressed upon the points of the bident, they were passed so quickly through the subconjunctival space, after penetrating the scleratic, as not to let any fluid flow into and distend the subconjunctival connective tissue. The holder was then detached from the bident, and the lens remained free upon its prongs, and pressed against the cornea. A sufficient wound in a downward direction was then made in the cornea, with a narrow Gräfe's knife, and the delivery of the lens easily completed with a delicate wire, or skeleton spoon. The bident was then removed; there was scarcely an appreciable escape of vitreous; the corneal wound fell into neat coaptation and there was no prolapse of iris. The operation was done November 13, and the cure completed December 1.

In my own practice I have had occasion to employ the bident but once. The patient, age forty years, had been struck in the eye with a stone; he was not sent to me for some little time after the accident, when I found the good eye in an irritable condition, and in the injured one the lens was partially in the anterior chamber. I chloroformed the patient, used cocaine locally, and following Dr. Agnew's directions, passed the bident in and pressed the lens into the anterior chamber; made my corneal incision, and with a delicate spoon extracted the lens. Being my first case, I committed the common error of pressing the lens too far forward, thus wedging it in so tightly between the bident behind and the cornea in front that its removal was attended with some little difficulty. I closed both eyes, applying light compresses of absorbent cotton. The second day I removed the dressings and washed the lids thoroughly with a solution of bichloride of mercury, 1 to 2,500, and instilled some in the palpebral slit. I also dropped in the eye a solution of atropia. I pursued this course of treatment, and the recovery of the patient was continuous and uneventful, being discharged cured twelve days after the operation. The modification of the original bident, by Dr. Andrews, of New York, possesses the advantage of having a handle fastened on by a delicate spring, admitting of more nicety of manipulation than where the Sand's needle-holder is used. Some may suggest that the puncture made by the bident in the ciliary region might occasion a sympathetic irritation in the fellow eye; so far this has not been the case and wounds made by the bident have appeared quite unimportant. I am impressed with the idea that where we can detect a fluid vitreous in ordinary cataract extraction, the bident would be of decided advantage in preventing loss of vitreous.

The Polyclinic.

PHILADELPHIA HOSPITAL.

ERNEST LAPLACE, M.D.

METASTATIC EPITHELIOMA.

THE woman who will be brought before you for operation is suffering from metastasis resulting from an epithelioma of the lip. She was operated upon last year, for epithelioma of the lip, and at that time no infiltration of the glands could be detected; but, after the operation, a new cancerous focus was established in the glands of the neck.

By an epithelioma we understand a growth that starts from epithelium. We call the lining membrane of the skin and mucous membrane epithelium. There is another set of cells that resemble epithelium—that grow, as epithelium does, by karyokinesis—and are not found over the surface, but within certain structures, and, in place of being called *epi*-thelium, are called *endo*-thelium. Epithelial cells are flattened, and consist of a nucleus with a mass of protoplasm around it. Any tumor that starts from the epithelium is an epithelioma.

On the other hand, I spoke of another group of cells that is found, not upon the skin and mucous membrane, but in the vessels and glands, and called endothelium. These two kinds of cells, aside from shape and size, proliferate by a splitting up of their nucleus. The nucleus grows larger and contracts in the center into an hour-glass form, and then divides into two parts or nuclei, and the cell then splits into two distinct cells. When all the cells of a part have repeatedly undergone this change we have an epithelioma.

There is a whole mass of glands on the right side of this woman's neck, which are enlarged. An incision is made along the line of the glands, and the mass is found to be very friable. First of all, circumscribe the tumor, and it is an easy matter to attend to the rest. I find this mass to be connected with the masseter muscle, and it is also necessary to denude the maxillary bone. It is almost impossible to avoid cutting the facial artery, and precautions must be taken to see that it is properly ligated. The wound is thoroughly cleansed with antiseptic solution, and ligatures applied after the wound has been painted with a solution of iodoform and ether. Dress antiseptically.

In this case we must be ready for every emergency, for we are working in a very delicate region. A tampon applied for a few moments will stop all oozing

effectually. There is not the slightest objection to applying a sterilized ligature around a vein or artery, and allowing it to remain in the wound. Formerly, bad results from the use of the ligature came from the introduction of germs and septic matter. At present we ligate every important vein and artery without fear. Should we not be able to stop the hemorrhage without a ligature, what should be done? If the patient could not afford to lose any blood, put on the hæmostatic forceps, and allow them to remain for twenty-four hours, and this will check it, with a good deep suture. In this case there is no necessity for this procedure.

In every case where we have used a ten per cent. solution of iodoform and ether after the operation, we have not had a single drop of suppuration.

THE FUNDAMENTAL FACTORS IN THE CAUSATION OF THE INFECTIOUS DISEASES.—1. All toxicogenic germs are dangerous when introduced into the body.

2. Filth may and does breed disease.

3. It is not necessary that milk should contain a specific germ in order to poison a child, or that water should contain Eberth's bacillus in order that it may induce typhoid fever.

4. Wheresoever man builds for himself a habitation and poisons the soil about him and the water which he drinks, with his own excretions, there will be enteric fever.

5. A good digestion and a healthy gastric juice does aid in the prevention of disease.

6. We can still continue to treat consumption by good, generous feeding and constitutional treatment, without the risk of being denounced old fogyish and unscientific in our practice. Such practice is more scientific and more successful than such fads as the rectal administration of hydrogen sulphide gas and inhalation of hot air, which have been imported in recent days from France and Germany.

Our fathers who treated tuberculosis with cod-liver oil and recommended out-door exercise, but who carried no gas bags and knew nothing of the Weigert oven, were not such fools after all.

In conclusion let us state that the germ is only one of the factors in the causation of the infectious diseases. The other factors are to be found in disordered digestion and impoverished blood.

—Vaughan, in *Med. Age.*

TREATMENT OF DIPHTHERIA.—The author has treated in the past two years two hundred and eighty cases of undoubted diphtheria. Six of these cases were complicated with laryngeal diphtheria, and fourteen with nasal diphtheria; about twenty cases were of the severest type, and 45 per cent. of all the cases were below the age of ten years. The treatment consisted of the administration internally of $\frac{1}{10}$ to $\frac{3}{10}$ per cent. solution of thymol, and sometimes also of arac or cognac.

The action of the remedy was rapid, especially in overcoming the tendency to general systemic poisoning. It was given at short intervals (usually five minutes) in doses of five or six drops. In primary laryngeal croup this remedy has three times been successful.

No unpleasant results were at any time observed.

—Gros, trans. in *Annals Gyn. and Pæd.*

ALTERATIVES IN NERVOUS DISEASES.—Each year of my special practice in diseases of the nervous system, I grow more and more convinced that too much stress is placed upon the use of tonics and stimulants therein, and too little reliance upon drugs intended to change blood. There is a distinct limit to the former, for they rapidly lose effect if continued any great length of time, and their number, although large, is not sufficient to keep up a non-ending relay. It is curious how soon toleration of any one of this class of remedies is established up to immense doses, and how long it is before the system recovers so that small ones will have the primary effect. I have a patient upon whom a less dose of compound elixir of cinchona than four ounces is useless, and who only feels that dose pleasantly. Every practitioner has had similar experiences, and has gone through the gamut of tonics only to turn in disgust from the shelf that holds them, in despair of finding something new.

It is in the hope of supplying this need that I wish to call attention to some of my own work in the line of nervous diseases, in which I am interested.

About two years ago, a young lady came from central Maine to me, suffering with an obscure disease of the spinal chord, which had prostrated her nervous system, and made of a strong girl an apparently hopeless invalid. For months she had been unable to help herself from exhaustion, all functions were disturbed, and melancholia threatened.

After a few days' rest, I began the use of central galvanism systematically, and continued it for ten days. At the end of this time, in place of improvement, there was positive loss. She was weaker than at first, and it became evident that something else was called for.

She was then placed in an isolated quiet room, with a trained nurse, and fed with my favorite mixture of equal parts of cream and Valentine's beef juice, a teaspoonful every half hour. At the same time I commenced the administration of iodine, using by preference Gardner's syrup of hydriodic acid in ten-drop doses hourly. I find that this preparation is by far the best form of iodine for rapid dosing, as it is pleasant to taste and rarely, if ever, produces coryza.

In three days the girl showed improvement, and in three more was so much better that seclusion was abandoned and the dietary enlarged to take in some solid food. The iodine was continued in drachm doses of the same syrup four times daily for another week, when Miss B. was on the high road to cure, and had commenced to taste metal plainly.

The iodine was then exchanged for hypophosphates, a half ounce at bedtime. Contrary to usual belief, I find this the most effective way of using this drug. There is a more rapid absorption going on during sleep than in waking hours, and the nervous system is more susceptible to influences of all kinds.

At the end of three weeks of the hypophosphates, accompanied by a diet list of usual proportions, Miss B. was sufficiently well to be permitted to return home, and has since remained in fair health.

The preparation last used was also from the Gardner laboratory, and I am convinced that it is essential to have these compounds pure, a condition that does not exist in every formula on the market.

I have had a bottle of each of these remedies of this make on a shelf in my medicine closet for six months without their undergoing any change, either in color, taste or therapeutical properties, and can recommend them as reliable.

All nervous diseases are either accompanied by, or are the result of, blood change, and will be most successfully treated by such means as will tend to restore the blood to a normal condition, and in my experience these have proven to be alteratives.

—Hutchinson, in *New Engl. Med. Monthly.*

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WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

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IRREGULARS.

THE relations of the irregular schools to the medical profession are attracting considerable attention. In an editorial on Eclecticism, the *Medical Record* discusses the attitude of this sect, and concludes that there is no place for such a special school. Nevertheless, there are in this body practitioners who have the confidence of their fellow-citizens; there are men who have received a thorough medical education; and they have shown the estimation in which they are held by procuring in New York legislation putting them on an equality with the vastly more numerous members of the regular profession. With colleges conducted by educated men, requiring, in one case, a graded course of three years, covering substantially the same ground as the regular colleges, many will ask why eclecticism exists. The sect no longer limits its therapy to the vegetable kingdom; but claims as broad a field for choice as we do. Recognizing that in the regular profession there is the utmost liberty for individual preference, why cannot these men find within our folds all the opportunities they need, without keeping up a separate establishment?

The reason lies in this, that they cannot get into the regular fold, and that the body of their sect—not the head that gives respectability to it, but the great mass—is not so well qualified as to be admitted. The young man who has, unwittingly, entered an eclectic college, has no other resource but to remain an eclectic for life, live in professional isolation, or spend three years in a regular medical college. This is practically a prohibitory tariff; he is a sinner past redemption. To a great many, the three years would be well spent; as their previous collegiate course was of flimsy texture. But here and there we meet with one who does not need such a course; and to whom its exaction would be the waste of a larger section of one's life than any good man can afford to waste. For these it is an injustice to require it. We have already stated our belief that if our doors were opened to this class, there would be an end of eclecticism as a separate school. The truth of this is shown by the uneasiness it has occasioned among eclectics to whom it does not apply. One eclectic journal raises the cry of alarm over it, and loudly demands the upholding of sectarianism. Our memory is not so short but that we recollect seeing the name of that journal's editor upon the list of Buchanan's graduates. It is quite natural he should oppose any movement which would withdraw the worthy eclectics from their unworthy associates.

Give these men a chance to rectify an error into which they fell at a time when they had not acquired such a knowledge of medicine as enabled them to choose wisely. How well qualified is any of our own students to judge when he first enters upon his studies? Did any one of our readers enter the regular profession after a careful examination of its principles and a comparison with the other schools? We have yet to meet the physician who did anything of the sort. We became regulars because our family doctors or preceptors were regulars; or because the university we attended as under graduates had a regular medical department. Why, then, so relentlessly visit upon others the consequences of a choice no more thoughtless than our own? Our proposition is simply this: That the American Medical Association should authorize the colleges to admit to the graduating class practitioners of other schools who have taken complete courses of medical study, and are able to pass the examinations required of our own second course students. It is to be understood that this privilege is to be extended only to those who shall signify their intention to practice medicine regularly, in accordance with the code of ethics of the Association.

Letters to the Editor.

SCREW-WORMS.

CASE I.—In August, 1882, in one of the wards of our County Hospital, I found a man who had been admitted for break-bone fever, contracted in the southern part of Arkansas, from which place he had just arrived.

He told me that he had that morning spit up several worms, which he had preserved to show me. They were screw-worms about three-quarters of an inch long and one-quarter of an inch in diameter. Upon examination, I found the mucous membrane covering the roof of the mouth thickly studded with black dots, which were moving. Applying the forceps, each dot proved to be the head of a screw-worm, and in a short time twenty were removed. Upon further examination they were also found in the nasal cavity, filling both nostrils. I injected a spray of chloroform, and then adjusted a post-nasal douche, using carbolized water, which brought away quite a large number. Ordered douche continued, also a spray to the nasal, post-nasal and pharyngeal walls, which had the effect of removing all within four or five days. During the treatment he called my attention to a small swelling, just anterior to the sterno cleido mastoid muscle, and about an inch below the angle of the inferior maxillary, and said that he thought it contained worms, for he could feel their movements. Upon examination I became convinced that his suspicions were correct, and cutting down upon them, eight or ten were removed, that had evidently bored

their way through the soft tissues of the throat to that situation. After thoroughly disinfecting the cavity, or nest, in which they were found, no further trouble was experienced.

CASE II.—On the 23d of July, 1890, I was called to see Mary Welch, an orphan girl, aged seventeen years, living in a railroad camp, and who was said to be suffering from neuralgia. The right side of her face was very much swollen, eye closed, and suffering intense pain. There was also a very offensive discharge from the right nostril. Upon close examination, with the speculum, to find the cause of the discharge, I was surprised to find a living, moving mass of worms entirely filling the nasal cavity of that side. Ten or twelve were removed with long dressing forceps. I next used a douche of carbolic acid 1 to 1,000, which brought away a few more. Upon examining the mouth I found the pharynx, tonsils, and roof of mouth filled with them, but all under the mucous membrane, where I could not get at them. I saw her once a day, and after removing all worms in sight with forceps, the entire nasal cavity was disinfected by the carbolic acid solution, and then dusted over with iodoform. This treatment had the effect of driving them into the nostrils and into the mouth, and from there they were blown out, or spit out, or removed by forceps.

Treatment was continued four days, removing fifty-seven worms in all, after which patient made a good recovery.

This worm, called the screw-worm, or Texas borer, is from one-half to three-quarters of an inch long and one-quarter of an inch in diameter, pointed on both ends. It is very active in its movements, and the ability displayed in boring into and through the soft tissues of the post-nasal region is marvelous. The body is made up of successive layers or rings, very much resembling a screw, hence their name.

They are the product of the egg of the Texas fly, and are extremely rare in this part of the country, but three cases having come to my knowledge in the past twenty years. It is supposed that the egg is deposited by the fly in the nostril during sleep, from which the worm is developed. This theory is very well supported by my two cases, the one sleeping out doors a great deal, and the other living in an open tent day and night. E. W. FIEGENBAUM, M.D.

EVANSVILLE, ILL.

CORRECTION.

ON page 157 of your journal, you do this institution a great injustice, as no one has "died in the insane department of the Philadelphia Hospital, from scalds accidentally received while bathing." The accident was at another hospital. Will you kindly correct the statement? D. E. HUGHES, M. D.

[The substitution of the definite article for the indefinite was overlooked by the proof-reader, which occasioned the mistake.]

Book Notices.

CYCLOPEDIA OF THE DISEASE OF CHILDREN, Vol. III. Edited by JNO. M. KEATING, M.D. J. B. Lippincott Company.

The third and largest volume of Dr. Keating's great work does not suffer in the least by comparison with the two which preceded it. The scope and magnitude of the Cyclopedia are in themselves conclusive evidence of the fact that the subject "Diseases of Children," is not to be looked upon as a specialty—the limits of its boundary lines being altogether too wide. In the space at my disposal it is impossible to review even briefly all the articles of the volume—a totality of forty-seven. A mere enumeration of them, or, at most, a few general statements must suffice for the majority of the papers, while a small number seem to demand somewhat more elaborate mention.

The subjects discussed are, with a few exceptions, of great practical importance, and were, for the most part, treated with due thoroughness by well-known authorities, some of whom are specialists, handling familiar subjects in their respective domains.

A few of the articles have little more than a scientific interest for the medical practitioner, but this is manifestly unavoidable in a work whose purpose is to convey encyclopedic knowledge. On comparing the illustrations of the present volume with those of Vols. I and II, we find them to be more numerous and, on the whole, superior. The plates of Holt, showing hyperplasia of lymph-nodules, superficial and deep ulcers of colon, acute and chronic catarrhal and croupus inflammations of the small and large intestines, being especially fine. There are about two hundred and fifty figures contained in the present volume, all of which are creditable. We have but a single criticism to offer, and this would apply to all works of similar pretensions, viz., too great division of labor has in many places throughout the book caused needless and excessive repetitions.

In Part I are discussed "Diseases of the Digestive System," and it contains, among others, the following articles: Functional Diseases of the Stomach, by Dr. Wm. Pepper; The Diarrhœal Diseases, Acute and Chronic, by L. Emmett Holt, M.D; Intestinal Bacteria of Children, by Wm. D. Booker, M.D.; Tabes Mesenterica, by A. Jacobi, M.D.; Enlargements of the Liver, by J. H. Musser, M.D.; Contractions of the Liver, by Marcus P. Halfield, M.D.; and Intestinal Obstruction in Children, by W. W. Keen, M.D.

Dr. Pepper's opening paper has the great merit of being practical. We doubt the propriety, however, of describing cyclical vomiting as a distinct condition, since it invariably is merely symtomatic of a great variety of disturbing causes. The excellent article on the Diarrhœa Diseases by Dr. Holt deserves to be widely read, as does also that by Dr. Booker on the Intestinal Bacteria, a subject which is engrossing, and, on account of its practical bearings, deservedly so, a large share of professional attention.

Dr. Musser's discussion of the various conditions and diseases which cause enlargement of the liver is clear and full. This is especially true of the author's treatment of abscess of the liver.

Part II is devoted to "Diseases of the Genito-urinary Organs," and contains not less than thirteen articles. Dr. John F. Goodhart has an excellent paper on "Acute and Chronic Bright's Disease." The author emphasizes the facts that the onset of parenchymatous nephritis may be very insidious, and that "for the diagnosis in such cases thirst may be the guiding light." There is no more praiseworthy article in the whole volume than that by Dr. De Forest Willard on "Malformations of the Penis, Urethra, and Bladder." Every practitioner will readily agree with this writer in stating that "a degree of deformity which would be simply an annoyance, if situated on some other portion of the body, becomes, when associated with the genitalia, so mind-absorbing,

that the individual is rendered morbidly sensitive, and at times becomes almost a sexual monomaniac."

The surgical procedures for the permanent relief of many of these defects are clearly described by one who is, verily, master of his subject. There is a capital chapter on "Diseases of the Blood," by J. P. Crozier Griffith, though it should have found a place in another volume.

Part III—*Surgery*—opens with a worthy introduction by Chas. W. Dulles, M.D., on "Minor Surgery and Emergencies in Children." That portion of the article which deals with emergencies is of great practical value to the practitioner, and especially the author's table, giving the names of most mineral and vegetable poisons and the proper treatment of each.

The subject of "Anæsthesia and Anæsthetics" is ably presented by Dr. O. H. Allis, although it is with great regret we note that his "decided preference in every case, and especially for children, is for that anæsthetic" (chloroform), the author believing this agent to be perfectly safe when rightly administered.

Dr. Thomas R. Neilson introduces Part II (Diseases of the Osseous System and of the Joints) by a good presentation of the subject: "Congenital Abnormalities of the Extremities."

"Club Foot" and "Torticollis" are treated in a satisfactory manner by Drs. E. H. Bradford and E. G. Brackett, and "Fractures and Dislocations," by Dr. J. H. Packard, well-known surgical writers. The last chapter is closed with an article from the pen of Dr. Wm. Barton Hopkins, who discourses learnedly on the subject of "Amputations."

There is certainly much remaining that should be favorably mentioned in the present volume, did space permit; in short, this admirable work should, as it doubtless will, find a place in the library of every truly progressive physician. J. M. A.

Pamphlets.

The Application of Vocal Culture to the Treatment of Throat and Pulmonary Affections. By Eugene L. Crutchfield, M.D., Baltimore, Md. Reprint from *Gaillard's Medical Journal*, August, 1890.

The Medical Digest.

ARNAUDET has made an important contribution towards the study of cancer, as to its contagiousness. He finds that in a Normandy village ratio of deaths from cancer is four times that of Paris. The drinking water is largely drawn from surface ponds, and this is used in the manufacture of cider. The malady developed successively on a line corresponding to the water-supply of these ponds. Such studies could be made in many cases by country doctors.

IS DIABETES CONTAGIOUS?—Schmitz asks the question (*Berlin Klin. Wochensch*), struck by the large number of cases to be found at a thermal station frequented by diabetics. Women in apparent health are often seized suddenly with diabetes, while they are caring for diabetic husbands; even when no heredity can be traced, and no special cause exists. In one case a woman of healthy antecedents married a diabetic. Shortly after his death she was found to be herself affected with glycosuria; but, marrying again, her second husband was soon attacked with diabetes.

FOR OZENA.—

R.—Salol	3ij
Acid. borici	3j
Acid. salicylici	gr. xij
Thymol	gr. v
Talci pulv	3iij

M. S.—To be used as a snuff, alternated with carbolic acid irrigations.

—Cozzolina, in *Prov. Med. Jour.*

CALOMEL AS A DIURETIC.—From the reports thus far presented, we may safely conclude that:

1. Calomel, and in all probability other mercurial compounds, possess diuretic properties.

2. If given in proper dose, the effect of calomel becomes evident in two to ten days. Continuance of the treatment during the diuresis will not alter or increase the effect.

3. Its action is most marked in dropsies due to heart disease. Its action in dropsies of hepatic origin is not to be relied upon. Pathological changes in the kidney prevent or abridge its action.

4. Small doses will prove of no avail.

5. The diuretic action may, in all probability, be ascribed to the irritating effect which the mercury, during its elimination, exercises upon the renal epithelium.—Fackler, in *Jour. Amer. Med. Asso.*

LIPPINCOTT contributes to the *American Journal of Ophthalmology* a paper upon intraocular syringing in cataract extraction, with a report of fifty-three operations. He draws the following conclusions:

"1. The absence, excepting in one case (No. 41), of inflammation or irritation directly referable to the operation, and the absence, also excepting in one case (No. 30), of inflammation from any source serious enough to cause anxiety.

"2. The large proportion of cases in which a high degree of visual acuity was obtained.

"3. The large proportion of cases in which the operation was surgically complete, *i.e.*, in which no capsular opacity remained to be treated by secondary operation. (I make no note of the absence of suppurative inflammation because purulent processes, as remarked by Sattler, Knapp, and others, are of late becoming more and more rare.)

"These advantages I cannot but think attributable in a large degree to the fact of the anterior chamber being so thoroughly cleared of residual cortex."

Speaking of the syringe utilized in these cases he says:

"1. As there is no backward flow, it (the syringe) has no tendency to become septic in use except at the point of the nozzle, and the latter can be readily pulled off and thrown into boiling water or alcohol. If the purity of the other parts of the apparatus is suspected, it is easy to place the reservoir in boiling water, and to replace the old rubber tubing with a new piece.

"2. This instrument can always be depended upon to work smoothly.

"3. It is held like a penholder, and is as easily and securely handled.

"4. As the ejecting force is proportional to the height of the column of liquid, it is of course under absolute control. . . .

"Should a *per saltum* movement be desired, this can be effected . . . by intermittent pressure on the short piston.

"5. It goes without saying that in using this syringe there is no possibility of the entrance of air into the eye."

Medical News and Miscellany.

THE next Congress will be held at Rome, in 1893.

DRUNKENNESS is said to be largely increasing in France.

DETROIT doctors are quarreling over their ability to kill diphtheria germs.

DR. N. SAXMAN, of St. Mary's Hospital, is at Brighton Beach, recuperating.

HEBREW women are almost universally sufferers from uterine and vaginal maladies.

THERE were 355 children sent out last week by the Children's Country Week Association.

DR. GEORGE T. ENGLISH is one of the most popular guests at the Prexton Villa, Cape May.

DR. J. DALLAS ERDMAN, of Macungle, has had his property seized by the Sheriff on an execution.

THE Canadian Medical Association will hold its annual meeting in Toronto, September 9, 10, and 11.

SURGEON-GENERAL JOHN MOORE has been placed on the retired list, by operation of law, on account of age.

IT is stated that small-pox is causing many deaths in the ranks of the Guatemalan army on the Salvadorian frontier.

GRANDON MACREADY, a sixteen-months-old child, was burned with carbolic acid last week, but is reported as improving.

MRS. TILLIE BROWN, at the point of a pistol, rescued a little girl from the hands of a ruffian at Brown's Mills, N. J., last week.

A BERLIN man, bent on self-destruction, found a new way out. He drank a quart bottle of copying ink and blotted out his existence.

NORMAN KERR pronounces hypnotism to be in ninety-nine cases out of a hundred, therapeutically useless and morally dangerous.

DR. J. M. DACOSTA, who was recently the guest of of Mr. and Mrs. George W. Childs, at Elberon, N. J., is now sojourning at Bar Harbor.

M. FILLET DE GRANDMONT has succeeded in restoring the eyelids of a child, by grafts of frogs' skin. The lids had been destroyed by a burn.

PROF. R. VIRCHOW will be three-score and ten years old on October 13. It is proposed to make the event memorable by a banquet and celebration.

DR. G. MILTON BRADFIELD, recorder of the Medical Jurisprudence Society, has lately returned from a trip to Boston, Newport, and Narragansett Pier.

THE Citizens' Passenger Railway Company's stables were destroyed by a severe storm in Philadelphia last week. Six people were killed, and seven injured.

GERMAIN SÈE recommends cannabis Indica for gastric pain. He gives gr. ⅓ of the extract at a dose. This relieves pain, heartburn or epigastric discomfort, without interfering with digestion. The usual treatment, dietetic and medicinal, should also be directed against the causal disease.

THE Trustees of the Camden Methodist Home for the Aged and Infirm have resolved to erect a large home building at Collingswood.

A PHYSICIAN should never idle away his time all day in his office. It's poor practice.

—*Binghamton Leader.*

AN old Indian mound was opened, lately, near Virginia, Ill. It is two hundred feet in length at the base, and one hundred feet broad, by thirty feet in height.

SURGEON WYMAN, of Washington, last week replied to Chief Clerk William P. Troth in relation to the report that yellow fever existed at Port Simon, Costa Rica.

THE threatened legal contest between the Medico-Chirurgical Hospital trustees and adjacent property owners has been amicably settled, both sides making concessions.

A STORY comes from Parkersburg, W. Va., of a snake eight feet long becoming the pet of a family. The said snake answers to his name when called, so the story goes.

THE Senate has agreed to the House amendments to the bill providing for the inspection of meats for exportation. The measure now goes to the President for his signature.

THE new management of the Atlanta *Medical Journal* says it will remove advertisements from among the reading pages. Would that all medical journals would do likewise.

BELLEVUE HOSPITAL MEDICAL COLLEGE and the University Medical College, N. Y., beginning next year, will each require three courses of lectures for graduation. Good.

THE Czar of Russia, it is reported, now employs an American dentist exclusively. And, considering how constantly the Nihilist keeps his teeth on edge, the dentist has no sinecure.

QUITE a sensation has been created in London by the discovery of a case of Asiatic cholera; the patient landed from the steamer Duke of Argyll, which had just returned from Calcutta.

DR. J. H. DOUGLAS, who attended General Grant during his last sickness, has been seized with paralysis, and lies helpless and poverty-stricken at the Presbyterian Hospital, New York.

THE favorite wife of the Shah has been operated upon by Vienna oculists for glaucoma. It is said the consulting Persian physicians who recommended the operation are confined to await the result.

WILLIAM HANLON, one of the famous Hanlon Brothers, had a severe fall from a trapeze in the New York Academy of Music, last week. Drs. Gray and Hallock, of the New York Hospital, attended him.

DR. J. ORNE GREEN says that he has operated upon seventy-eight cases of meningitis from disease of the middle ear. Of these, sixty were cured, three not cured, seven died, two unknown, six unfinished.

A NEW monthly medical journal was issued August 15, at Asheville, N. C., called the *Asheville Medical Review*. Frank T. Merriwether, M. D., and H. Longstreet Taylor, A. M., M. D., are the editors and publishers.

An epidemic of diphtheria, of the most malignant type, is reported from Chicago, in that portion of the Town of Lake known as "the New City." The section is said to be in bad sanitary condition.

The Marine Hospital Bureau has been notified of a case of yellow fever on board the Spanish bark Castillo from Cienfuegos via Pencougala, now detained at the Chandeleur Quarantine Station, Mississippi.

Officials of the Chicago Infirmary have discovered that bodies of paupers buried in the lot belonging to the institution have been disinterred and sold to medical schools for dissection, and that the business has been carried on for a long time.

The announcement was made that twenty car loads, or 20,000 watermelons, from Charlestown, Mo., were to be auctioned in New York last Monday, and it is believed that speculators with a car load of paregoric were in pursuit of the train load of bombs.

Mayor Fitler last week sent the balance of the fund for the entertainment of the Pan-American Congress, amounting to $204.22, to the Southern Home for Friendless Children. This was done after the wishes of the subscribers to the fund had been consulted. The total amount of the fund was $3,900.

Dr. William Rice last week filed his statement in the case against the Philadelphia *Inquirer* to recover $10,000 damages on account of a publication made in the *Inquirer* on November 13 last and circulated. Dr. Rice alleges that the charges made in the article are untrue, and the publicity given them by the paper has seriously injured his good name, fame, and reputation.

Chicago Polyclinic. — The following appointments have been made: Drs. G. Fütterer, F. C. Hotz, and E. Fletcher Ingals, Professors of Internal Medicine, Ophthalmology, and Laryngology, respectively. Drs. Chas. F. Stillman, P. S. Hayes, and J. M. Patton, Associate Professors of Orthopædic Surgery, Electro-Therapeutics, and Medicine, respectively.

London, Aug. 15.—The Government of India reports that the medical authorities are unable to agree as to whether leprosy is contagious or not. The local governments also differ on the question. The proposed legislation will therefore be postponed until full details have been collected through the National Leprosy Fund in conjunction with a medical commission, which will leave England in October.

The Coroner's jury in the case of Frederick Schroeder, who was thought to have been murdered by James Hall, at Morrisville, this State, last Monday week, concluded its testimony, and returned a verdict that Schroeder died from paralysis of the heart. The most important testimony was that of Dr. William E. Case, of Morrisville; Dr. George H. Stroup, of Eddington, and Dr. A. S. Wilson, of Bristol.

The annual meeting of the American Social Science Association will be held in Saratoga in the week beginning September 1. Several Philadelphians belong and will attend the sessions. Dr. H. L. Wayland reads a paper on Laissez-faire Run Mad, and Dr. W. B. Atkinson, Secretary of the Pennsylvania State Medical Association, will talk about Infants and Children and Their Food. Most of the economists of the country will be in attendance; Profs. James and Thompson, of the University, among them.

Dr. Albert Shaw, who recently contributed a striking article on Glassgow in *The Century*, is to write a series of papers for that magazine during the coming year, on "Municipal Government in Europe and America."

A Detroit man who drank a quart of embalming fluid in mistake for liquor, became as rigid and as white as marble half an hour before death, and when death came finally he looked more like a mummy than a corpse.

Dr. Simon N. Patten, Professor of Political Economy at the University of Pennsylvania, has been gathering vigor abroad this summer. At last accounts he was in Switzerland, and writes that he has bought a pair of seven-pound hop-nailed shoes for tramping over the Alps.

A boy cured of a dislocated neck is the prize case of the Presbyterian Hospital. The patient is so well mended that he does not have to wear a support to hold his head up. There have been broken necks mended, but few, if any, so well as this. The patient is Harry Reigel, fourteen years old, 511 North Forty-first street. He was attended by Dr. De Forrest Willard and Dr. Wm. C. Posey, a rising young physician.

From Tuesday to Thursday, it is reported there were twenty-eight deaths from cholera and forty-eight fresh cases of the disease at Eltor, in Egypt.

The dreaded disease seems to be steadily spreading along the Mediterranean coast of Spain, as well as into the interior of New Castile, where both Madrid and Toledo are more or less infected. Persistent rumors come of its appearance in the South of France, all of which, however, are denied vigorously, and the authorities are now watching suspicious cases at Liebenwalde, near Berlin.

The increasing popularity of the idea of the revival of the apprenticeship system received a curious illustration in the suggestion made by Mr. Lawson Tait, President of the Mason College, Birmingham, before the meeting of the Medical Congress. In considering the training essential for the craft of surgery the speaker cordially recommended the restoration of the apprenticeship system for medical and surgical students. He believed that an art like surgery cannot be acquired by passing examinations, but that other qualities are needed by the surgeon than simply knowledge derived through books and the training of schools.

The Anglo-American Dinner.—One of the social incidents at the Berlin Congress was the Anglo-American dinner, given by a few hospitably disposed Englishmen and Americans to friends of both nations at the Kaiserhof Hotel, on Friday last, with Dr. J. V. Shoemaker, the well-known therapeutist, of Philadelphia, in the chair. Upward of sixty representative medical men were present, including Dr. Landolt, of Paris; Profs. Pancoast and Goodman, Philadelphia; Dr. Wm. Murrell, London; Prof. Leech, Manchester; Dr. Parkes, U.S.A., etc., and in addition, the editor of the German *Pharmaceutical Times;* Mr. Burroughs, London; Mr. Evans, Philadelphia, and other well-known pharmacists were present. Although the arrangements were seriously interfered with by the delay entailed by the return of many of the guests from the Imperial reception at Potsdam, a thoroughly agreeable evening was spent by the company, most of whom only meet triennially on the occasion of these congresses.—*Med. Press.*

NEW PATENTS :—

PATENTS GRANTED AUGUST 19, 1890.

Dental Engine.....A. W. Browne.....Prince's Bay, N. Y.
Hand-Piece Pulley-Head for Dental Engines.....A. W. Browne.....,Prince's Bay, N. Y.
Dentist's Mixing-Slab.....L. Teal.....Philadelphia, Pa.
Blue Die.....A. Weinberg.....Frankfort-on-the-Main, Germany.
Lotion.....F. Schmidt.....Brooklyn, N. Y.

TRADE-MARKS ISSUED AUGUST 19, 1890.

Bitters (The word "Sioux")..E. Lassig Co.....Goodwin, S. D.
Perfumery, toilet-waters, soap, sachet-powders and smelling-salts (The word "Opal").Ladd & Coffin.....New York, N. Y.
Tooth-powder (The word "Ambrosial").....F. A. Ewer.....New York, N. Y.
Antibacterials, aseptics, and antiseptics, and antizymotics (The word "Pyoktanin").....E. Merck.....New York, N. Y.
Toilet lotions (The words "Diaphanous, Antephelis, Antiwrinkle Lotion").....M. J. Pinoult..... Boston, Mass.
Hair-restorative (The word "Champion" and a portrait of Mary M. Snyder).....M. M. Snyder & Co.Creston, West Va.
Liniment (The word "Magic," with two circles surmounted by an American eagle).....L. Conrad.....Elizabeth, N. J.
Mineral water (The word "Nee-Ska-Rae").....Nee-Ska-Rae Mineral Spring Co.....Milwaukee, Wis.

LABELS REGISTERED AUGUST 19, 1890.

"Marshmallow Cream".....The Diamond Laboratory Co.....Naugatuck, Conn.
"Youngkin Brothers Screw-Worm Exterminator".....J. A. and J S.Youngkin.....Sweet Home, Tex.

—Charles J. Gooch, *Patent Attorney.*
LOCK BOX 76, WASHINGTON, D. C.

INTERMENTS in Philadelphia, from August 16–23, 1890:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess of brain		1	Fever, typhoid	9	2
" " groin	1		Fracture of skull	1	
Alcoholism	2		Gangrene, senile	1	
Apoplexy	9		Inflammation brain	2	9
Bright's disease	8	1	" bronchi		2
Burns and scalds	4	1	" bladder	1	
Cancer, stomach	4		" kidneys	3	1
" uterus	1		" liver	1	
" face	1		" lungs	6	14
" liver	2		" pericar'm	1	
Caries of the spine	1		" periton'm	3	
Casualties	6	1	" s. & bowels	7	4
Congestion of the brain		1	" spine	1	
" " lungs	1	1	Insanity	1	
Cholera infantum		39	Inanition		15
" morbus	1	1	Marasmus		28
Cirrhosis of the liver	1	1	Old age	10	
Consumption of the lungs	44	9	Obstruction of the bowels	2	1
Convulsions	1	21	Paralysis	6	
" puerperal	1		Poisoning, ammonia	1	
Croup		3	Pyemia	1	1
Cyanosis		7	Rheumatism	1	
Drowned	3	3	Septicæmia	2	
Debility	5	2	Softening of the brain	1	
Diarrhœa		5	Suffocation		1
Diphtheria		8	Suicide, corrosive sublimate	1	
Disease of the hip		1	" drowning	1	
" " heart	24	4	" hanging	2	
" " liver	1		Tabes mesenterica		1
Dysentery	2	4	Teething		1
Dropsy, of the brain		3	Tetanus		1
Embolism, cerebral	1		Tumor, brain		1
Enlargement of the heart	2		" abdominal	1	
Emphysema	1		Ulceration of the stomach	2	
Fatty degener. of the heart	2		Uræmia	3	
Fever, gastric		2	Whooping-cough		9
" malarial	1	2			
" scarlet		3	Total	201	214

THE Government physicians, of Madrid, have announced their refusal to serve any longer in the cholera infected districts unless they are given a strong military escort. They declare that the peasants are opposing all attempts to institute sanitary precautions, and even resort to force in order to prevent them from doing their duty, and that under these circumstances any abatement in the virulence of the disease is quite impossible. The city of Argos has been deserted by all the inhabitants, only those who are down with the cholera and a few relatives who refuse to desert them being left.

THE trustees of the Helen Prideaux Memorial Fund have awarded the prize to Miss Adela McCulloch Knight, M.B. Lond., the Australian lady now Resident Medical Officer at the New Hospital for Women, Euston Road, who studied at the London School of Medicine for Women.

TO CONTRIBUTORS AND CORRSEPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from July 28, 1890, to August 23, 1890.

By direction of the Acting Secretary of War, leave of absence for one month and fifteen days, to take effect about August 15, 1890, is granted Major Daniel G. Caldwell, Surgeon. S. O. 176, par. 1, A. G. O., July 30, 1890, Washington, D. C.

By direction of the Acting Secretary of War, Captain William Stephenson, Assistant-Surgeon, now on duty at Columbus Barracks, Ohio, is assigned to temporary duty at Jefferson Barracks, Missouri, during the absence on leave of Daniel G. Caldwell, Surgeon, and will report accordingly. On the return to duty of Major Caldwell, Captain Stephenson will rejoin his proper station. S. O. 176, par. 2, A. G. O., July 30, 1890, Washington, D. C.

PROMOTION.

To be Assistant-Surgeon, with the rank of Captain after five years' service, in accordance with the act of June 23, 1874: Assistant-Surgeon Francis J. Ives, July 25, 1890. Headquarters of the Army, A. G. O., Washington, August 11, 1890.

To be Assistant-Surgeon, with rank of Captain after five years' service, from August 12, 1890, First Lieutenant and Assistant-Surgeon Wm. P. Kendall. Headquarters of the Army, A. G. O., Washington, August 18, 1890.

The leave of absence for seven days granted Captain George McCreary, Assistant-Surgeon, by Orders No. 84, Fort Warren, Mass, August 13, 1890, is hereby extended fifteen days. S. O. 193, Headquarters Division of the Atlantic, Governor's Island, New York City, August 15, 1890.

By direction of the Acting Secretary of War, the retirement from active service, this date, by operation of law, of Brigadier-General John Moore, Surgeon-General, U. S. Army, under the provisions of the Act of Congress approved June 30, 1882, is announced. General Moore will repair to his home, Bloomington, Indiana. S. O. 191, par. 2, A. G. O., Washington, D. C., August 16, 1890.

By direction of the Acting Secretary of War, First Lieutenant Charles F. Mason, Assistant-Surgeon, is relieved from further temporary duty at Fort Logan, Colorado, and will report for duty at his proper station (Fort Washakie, Wyoming). S. O. 191, par. 3, A. G. O., Washington, D. C., August 16, 1890.

By direction of the Acting Secretary of War, a board of medical officers, to consist of Major Joseph V. D. Middleton, Surgeon; Major Clarence Ewen, Surgeon; Captain William E. Hopkins, Assistant-Surgeon, will assemble at the U. S. Military Academy, West Point, New York, at 11 o'clock, A.M., August 27, 1890, or as soon thereafter as practicable, to examine into the physical qualifications of the candidates for admission to the Academy. S. O. 192, par. 1, Washington, D.C., A. G. O., August 18, 1890.

With the approval of the Acting Secretary of War, leave of absence for four months, to take effect about September 1, 1890, is granted Captain Walter Reed, Assistant-Surgeon. S. O. 192, par. 17, A. G. O., Washington, D. C., August 18, 1890.

RETIREMENT.

MOORE, JOHN, Brigadier-General and Surgeon-General, August 16, 1890 (Act of June 30, 1882). Headquarters of the Army, A. G. O., Washington, August 18, 1890.

Medical Index.

A weekly list of the more important and practical articles appearing in the contemporary foreign and domestic medical journals.

Extra-neural nervous disease, Hughes. Alienist and Neurol.
Erkrankungen des Magen-Darmtraktus, Blutkrankheiten. Deutsche Med.-Ztg.
Erysipela infectieux et pneumonie erysipelateuse, Cerne. La Normandie Médicale.
Estudio terapeutico sobre la fenacetina, Sinforiano. Rev. Clin.
Ein Beitrag z. Ætiologie d. Eiterung, Kapper. Wien. M. Pr.
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Fractures of the maxillæ, treatment of, Gibson. Dent. Cosm.
Five surgical cases of somewhat exceptional interest, Powers. Medical News.
Facial expression of cerebral, multiple cerebro-spinal, sclerosis, notes on, Hughes. Alienist and Neurol.
Food adulteration and meat poisoning, Newton. Sanitarian.
Gross anatomy of chronic pulmonary consumption in relation to diagnosis and prognosis, Roosevelt. N. Y. Med. Jour.
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Gastro-enterostomy for pyloric carcinoma, Jessett. Lancet.
Gargling, its proper method and sphere of usefulness, Swain. Med. Record.
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Hysterectomy for œdematous fibroid, recovery, Douglas. *Ibid.*
Hysterical aphonia, or paralysis of the crico-arytenoid muscles, Ingals. Jour. Amer. Med. Ass'n.
Hydrotherapie bei chronischer Rückenmarksentzündung, Florian. Deutsche Med.-Ztg.
Hereditary criminality, *vs.* educat., McClelland. Med.-Leg. J.
Hamamelis virginica, Spees. Cin. Lancet-Clinic.
Heilung eines grossen Senkungsabscesses nach Rippencaries durch Iodoforminjectionen, Kerschner. Prager Med. Woch.
Hematocele pelvienne intra-peritonale, Pozzi. Bulletin Méd.
Hypnotism, Funkhouser. The Alienist and Neurol.
Hypnotic state of hysteria, Krauss. Jour. Nerv. Ment. Dis.
Injuries of the hip and absorption of the neck of the femur, Vance. N. Y. Med. Jour.
Intra-ligamentary ovarian cyst successfully treated with iodine injections. Rhett. *Ibid.*
Impacted urethral calcul. in boy of three years, Crandall. *Ib.*
Influenza u. Augenerkrankungen, Greeff. Berl. Klin. Woch.
Infl. dystrophique de l'heredo-syphilis, Fournier. La Méd. M.
Injuries to the head, Battle. British Med. Jour.; Lancet.
Invaginat. of the intestines, Robinson. Tol. Med. Surg. Rep.
Infant prodigy, Clevenger. Alienist and Neurol.
Insular sclerosis, in which an attack of cerebral hemorrhage arrested the tremor on the hemiplegic side, Sinkler. Jour. Nerv. and Mental Diseases.
Iridescent vision in glaucoma, Collins. Ophthál. Rev.
Influenza in Massachusetts, Shattuck. Bost. Med. Surg. Jour.
Klinische Beobachtungen über die Resistenz der rothen Blutkörperchen und die Isotonieverhältnisse des Blutserums bei Krankheiten, Limbeck. Prager Med. Wochenschrift.
Left inguinal colotomy, with remarks on other operations, Gaston. Jour. Amer. Med. Ass'n.
Le jambul, Egasse. Bulletin Gén. de Therap.
La circulation et le rôle des hydro-carbones dans l'organisme, à propos du diabete, Arnaud. La Trib. Méd.
L'influenza e le malattie nervose e mentali, Lojacono. Rif. M.
Lupus primitif de la gorge, Moussons. J. de Méd. de Bord.
Local and general peritonitis, treatment of, Davis. Cin. M. J.
Leçons sur un cas de maladie des tics et un cas de tremblement singulier de la tête et des membres gauches, Grasset. Archive de Neurol.
La tuberc., la vaccine et le vaccin de chèvre. G. M. de Nantes.
Laudry's paralysis, contribution to the study of, Preston. The Alienist and Neurologist.
Les microbes de la grippe, Critzmann. La Méd. Mod.
La sarcinosis, su tratamienio por el lavado del estomago con el sulf. y el bisulfito de sosa, Jacobo. Rev. Clin. de los Hosp.
Mrs. Abbott, the Georgia magn. woman, Smith. Am. Pract.
Menthol in diseases of the air-passages, Bishop. Med. News.
Management of lacerated perineum, Beattie. Kansas C. M. R.
Micro-organisms in relation to the production of disease, Wade. South. Cal. Pract.
Multiple neuritis, Funkhouser. The Alienist and Neurol.
Mental symptoms of phthisis, Kiernau. *Ibid.*
Motor hallucinations, Tamburini. *Ibid.*
Medals, Jeton's, and tokens illustrative of sanitation, Storer. The Sanitarian.
Meningite simple survenant pendant la convalescence d'une fièvre typhoide et evolaunt à la manière d'une meningite tuberculeuse, Tordeus. Jour. de Méd.
Malignant endocarditis, Stedman. Bost. Med. and Surg. Jour.
Malignant endocarditis secondary to colitis, Shattuck. *Ibid.*
Notiz z. Chemie d. Samens, Posner. Central. f. d. Med. Wiss.
Notizen über die Denguefieber-Epidemie und die Influenza. Epidemie zu Smyrna, Diamantopulos. Wien. Med. Presse.
Nephrolithotomy, Keetley. British Med. Jour.
New aural probe, Cousins. Med. Press.
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Nota clin. sulle psicosi consecutive all' influenza, Cristiani. *Ib.*
Note sur un cas de folie-choreique, Regis. J. de Méd. de Bord.
Neuric and electric forces, Schilling. Alienist and Neurol.
New method of obtaining small quantities of stomach contents for diagnostic purposes, Einhorn. Med. Record.
Origin and evolution of the face, Thompson. Dental Cosmos.
Observations sur les cysticerques du tænia saginata ou inermis humain dans les muscles du veau et du bœuf, Laboulbeue. Bulletin de l'Acad. de Méd.
Œdema of the lungs in partur. women, Bissell. N.-W. Lanc.
Osmosis of strychnia through organic tissues, Miller. M.-L. J.
Observations on treatment of pernicious anæmia, based on a study of its causation, notes of a case, Hunter. Brit. M. J.
Primary broncho-pneumonia, acute, with low temperature and other obscure symptoms, Holt. N. Y. Med. Jour.
Persistent vomiting, with history of chylous (?) vomiting, relieved by laparotomy, Buckmaster. *Ibid.*
Prolapsus of the anterior vaginal wall, new operations for, Currier. Jour. Amer. Med. Ass'n.
Pelvic and abdominal surgery, recent cases in, McMurty. The Med. Progress.
Psychosen nach Influenza, von Holst. Berl. Klin. Wochen.
Puerperal eclamysia, treatment, seven cases, Poe. Omaha Cl.
Primera ovariotomia practicada en Puerto Rico, Stahl. Cron.
Prolapsus or procidentia of the rectum, McLeod. Lancet.
Progress of sanitation in South India, Roe. Brit. Med. Jour.
Porvo-Cæsarean operation, Cadge. *Ibid.*
Poisoning by mussels, Cameron. *Ibid.*
Paralisi nucleari dei muscoli degli occhi. La Rif. Med.
Pulmonary tuberculosis, treatment of, Wells. Northw. Lanc.
Pathology of tuberculosis, Stewart. *Ibid.*
Poisoning by the use of sulphate of atropia in process of tooth-stopping, Cantli. Med. Press.
Plea for early operative interference in acute peritonitis, with reference to idiopathic peritonitis in children, Lydston. Archives of Pediatrics.
Prudential hæmatocele, Thompson. St. Joseph Med. Herald.
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Peritonitis, new treatment of, Lanphear. L. Kan. C. M. Ind.
Pulmonary tumors, McKee. Alabama Med. and Surg. Age.
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Peri-typhlitic abscess, Groves. Montreal Med. Jour.
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Prolapse of the ovary, Duke. *Ibid.*
Posterior hypertrophies of the middle and inferior turbinated bones, Allen. University Med. Magazine.
Prevention of pulmonary consumption, Kretzschmar. Brooklyn Med. Journal.
Predisposition to pulmonary phthisis and the prophylactic value of pulmonary gymnastics, Evans. *Ibid.*
Pseudo-membranous laryngitis by mercurial fumigation, treatment of, Law. *Ibid.*
Public hospitals of Brooklyn, Pilcher. *Ibid.*
Physiological and therapeut. action of sulphur, Shoemaker.
Paranoia, case of, illustrating the feature of imperative conceptions, Diller. The Alienist and Neurologist.
Poly-neuritis, form of, probably analagous to or identical with beri-beri occurring with sea-faring men in northern latitudes, Putnam. Jour. Nerv. and Mental Diseases.
Pouvoir antiseptique des couleurs d'aniline et leur emploi en therapeutique, Sée et Morau. La Med. Mod.
Perineal preservat. dur. labor, Cunningham. Week. M. Rev.
Peri-typhilitis, Homaus. Boston Med. and Surg. Jour.
Rickets, West. Cleveland Med. Gaz.
Repair of lacerated perineum, new operation for, Duke. Amer. Pract. and News.

The Times and Register.

Vol. XXI, No. 10. NEW YORK AND PHILADELPHIA, SEPTEMBER 6, 1890. Whole No. 626.

PAGE

ORIGINAL ARTICLES.

THE WEST INDIES AS A SANITARIUM. By William F. Hutchinson, M.D - - - - - 209
THE PRESENT STATUS OF HERNIA OPERATIONS. By J. W. Kiem, M.D. - - - - - 212
THE PATHOLOGY AND TREATMENT OF INTRA PELVIC INFLAMMATIONS. By W. B. Ward, M.D. - - - - - - - - - - - - 214
DERMATITIS MULTIFORMIS; REPORT OF A CASE, WITH REMARKS. By W. H. Dunlap, M.D. - - - - - - - - - - - - 217
THE DELSTANCHE INSTRUMENT FOR MASSAGE IN CERTAIN AFFECTIONS OF THE MIDDLE EAR. By W. Cheatham, M D. - 220
TREATMENT OF GONORRHŒAL BUBOS WITH PARENCHYMATOUS INJECTIONS OF IODINE. By P. S. Donnellan. - - - - - 221

SOCIETY NOTES.

PENNSYLVANIA AND MARYLAND MEDICAL ASSOCIATION. - - - - - - - - - - 221

EDITORIALS.

PHYSIOLOGICAL THERAPEUTICS. - - - - - 222
CAPITAL PUNISHMENT. - - - - - - - - 222

ANNOTATIONS.

The Country Doctor. - - - - - - - - - 223

PAGE

LETTERS TO THE EDITOR.

Poisoning by Dried Beef. *C. L. McCann, M D.* - - - - - - - - - - - - - - 223

THE MEDICAL DIGEST.

To Break up a Cold. *Dorr.* - - - - - - - 224
Pancoast's Pills - - - - - - - - - - - 224
For a Tonic in Gastro hepatic Cases. *Waln.* - - - - - - - - - - - - - - 224
For Recent Bruises. *Brensinger.* - - - - 225
For Cholera Morbus. *Gubbins.* - - - - - 225
Anodyne Lotion *Barker.* - - - - - - - 225
For Internal Hemorrhoids. *Laplace.* - - - 225
For Pruritus Ani et Vulvæ. *Laplace.* - - - 225
Cough Mixture. *Dorr.* - - - - - - - - 225
For Chronic Bronchitis in a Fat, Plethoric Woman. *Waugh.* - - - - - - - - - 225
For Gleet. *Waugh.* - - - - - - - - - 225
Quinine in Malarial Cases *Bacelli.* - - - 225
For Astigmatic Headache. *Jones.* - - - - 225
Women Doctors. *Lancet Clinic.* - - - - - 225
Chattanooga as a Health Resort. *Townes.* - 225
New Remedy for Pediculi Pubis. *Kansas Med. Journal.* - - - - - - - - - - - 225
Methacetine. *North Carolina Med. Journal.* 225
Reception of Distinguished Fellow-Citizens who Attended the Birmingham Meeting. 225

PAGE

Diphtheritic Membrane. *Brit. Med. Jour.* - 226
The Treatment of Dyspepsia by Cannabis Indica. *Sée.* - - - - - - - - - - - 226
Erratic Pain in Labor. *Johnston.* - - - - 226
Treatment of Purulent Pleurisy. *Bucquoy.* 226
Operation on the Vertex of the Cranium. *Hosp. Gazette.* - - - - - - - - - - 226
Nerve Restoration. *Glück.* - - - - - - - 226
Cocaine in the Ptyalism of Pregnancy. *Carlson.* - - - - - - - - - - - - - - 226
Cathartic Treatment of Peritonitis. *Lanphear.* - - - - - - - - - - - - - - 227
How Homœopathy Strikes the Briton. *Carter.* - - - - - - - - - - - - - - 227
Food for Convalescents. *Dietitic Gazette.* - 227
Extraction of Dislocated Lenses from the Eye. *Bull.* - - - - - - - - - - - - 227
Cold Baths in Typhoid Fever. *Debove.* - - 227
Hepatic Abscess. *Hache.* - - - - - - - 228
Farinaceous Foods in the Rearing of Infants. *Med. Press.* - - - - - - - - - 228
The Proteids in the Urine in Various Forms of Albuminuria. *Paton.* - - - - - - - 228
Acute Convulsive Seizure, the Result of Fish-bone in the Rectum. *Sir James Grant.* - 229
Census Questions. - - - - - - - - - - 229
Anatomical Changes and Clinical Features of the Varieties of Hepatic Cirrhosis. *Saundby.* - - - - - - - - - - - - - 229

MEDICAL NEWS AND MISCELLANY, 230

NOTES AND ITEMS - - - - - iv, xiv

Original Articles.

THE WEST INDIES AS A SANITARIUM.

BY WILLIAM F. HUTCHINSON, M.D.

CAREFUL and thorough consideration should precede decision where to send invalids for climate treatment.

Certain places are favorable for certain diseases, and these may be near together, even in the tropics; but judicious selection is not an easy matter, except the doctor is personally acquainted with the resorts he recommends, or knows some one who is to whom he can refer.

Warm climates by the sea are essentially favorable to nerve rest. Not only does the heated, hurried atmosphere lay its heavy hand upon undue mental or physical work, but examples of *dolce far niente* are seen in every surrounding picture, in every slow lounging movement of those who lend it animation. Then the voyage down to their sunny shores is often a veritable cure. Out of sight of land the voyager rests upon the heaving bosom of infinite power, and a brain that is worn out by constant study of details, or steady strain of important responsibilities, will find in the journey alone a valuable prescription.

There is total, enforced rest. Reading grows tiresome, even to well people; and such minor incidents as a passing ship or white jet of distant whale-spout, fill completely minds that are wont to be crowded with most important business. Even sea-sickness does its part in destroying memory and thoroughly stimulating the alimentary canal.

A gentleman from Albany said to me this morning at table, "I am astonished at myself. At home I never eat any breakfast, except oatmeal and cream, and here I am hungry for more after devouring three substantial steaks, and they don't disagree with me, either."

Any form of nervous prostration or mental tire is promptly benefited by these climates. It is best, I believe, to choose a residence in some island that will be permanent, where society is good and amusements not unknown, where sea-bathing may be had, and a good hotel. In this way, opportunity is afforded for one to grow accustomed to environment, and study customs of other lands, a pursuit always full of interest and profit. He will gain friends able and willing to aid him in search after lost health, and miss the confusion and excitement of shorter visits made upon a mere flying trip, and, best of all, will be afforded time for beneficial results to crystallize, so to speak, into permanent cure.

Mails are infrequent here, not arriving oftener than once in ten days or two weeks; and telegrams are such expensive luxuries at $3.00 a word that only sheer need compels their use. All sources of home worry thus cut off, and cold, stormy, northern winter only remembered with pity for such as cannot escape it, convalescence speedily begins. Rest, mental as well as physical, is again possible, and the invalid blesses sound judgment that sent him away.

Chronic albuminuria and diabetes are on the list of rare diseases here. Case after case within my personal experience has steadily gained in tropical climates, and two of my own are cured thereby, both remaining well after a year north. The perpetual skin action before spoken of, carries away urea and its compounds without troubling the kidneys. Perspiration is something astonishing to men whose skins have been dry and harsh for months, and sense of flexible, moist cuticle most agreeable. In one of my cases of diabetes in which sudorifics had been vainly tried, the first day at Nassau was marked by restoration of this function, and the sweat from any part of his body had a distinctly urinous odor, which it was more than a week in losing.

From almost constant calls to pass water, the demand ran down to four times daily, in a month; and

after the fourth night, Mr. D—— was able to sleep steadily through without a single summons.

Rapid gain of flesh followed, and although sugar did not entirely disappear during the first winter, there was a sense of returning strength and vitality, that speedily made drugs unnecessary, and that persisted all the following summer, which was spent climbing about the White Mountains. Briefly, in three winters of tropical sunshine and three summers of bracing mountain air, Mr. D. was cured. For four years now there has been nothing abnormal in his urine, and he is again effectively at the head of a great business.

So with albuminuria. In every case where kidney destruction has not progressed so far as to make even relief of symptoms impossible, I believe that a few seasons in the tropics, with judicious advice while there, will prove a cure. It must be so. Functional rest is the only form of treatment that is inaccessible north,—that nature freely furnishes in these sunny isles; and accompanying this, the valuable tonic, sea-bathing, may be taken every day in the year, in water whose tepid warmth does not over stimulate, and whose purity is guaranteed by three thousand miles of tossing before it comes to land.

There are few more delightful episodes in a sick man's existence than a change from leaden skies, howling winds, and chilling cold of northern winter to constant sunshine, soft trade winds, and delicious daily sea-baths of perpetual summer, with returning sense of capacity for enjoyment. "Life is still worth having," he says, as he gets up at five in the morning, walks down to the beach and enjoys his warm, salt-water bath. There is an exhilaration in matinal hours in the tropics that is contagious. Every thing is awake; turf, trees, and flowers are sparkling with dew; air is cool and sweet, and that vital sense which appropriates from nature its food, is completely satisfied.

It is in such diseases as Bright's that these influences are potent for good, and they are totally inaccessible in winter elsewhere.

These same powerful factors work equally well in what Americans delight in calling nervous exhaustion, when, perhaps, it is the entire system that is depleted of force.

In our party this year were half a dozen professional men, doctors of medicine and divinity, literary men and women, beside several merchants, and, with scarcely an exception, they were "all tired out." One reverend doctor, whose pleasant manners and jovial character made him a general favorite, had been ordered the trip by his physician, in the belief that his exhausted energies would be thereby somewhat restored. But he was mistaken. The clergyman, who had completely and suddenly broken down in nerve, was not to be restored in such a summary manner. He was a sufferer from sea-sickness that was enough, on a rolling ship like ours, to spoil half the voyage; and the rest was far too short for any permanent benefit. As far as it went, or could go, the climate change prescribed was well; but it is always a mistake to send a patient to sea who is a bad sailor, without a long interval of land rest before the return voyage.

This fact is not generally appreciated, I think, and many who return with but temporary or partial relief from nervous exhaustion, must bethink themselves that nothing more could be expected from such a course.

Causes that have been steadily at work for years, produce effects that are not removable in weeks, and a long, steady, complete rest, with all the environment of quiet, change of air, of scene and food, without excitement, or that hardest of work, sightseeing, is required to restore elasticity to the overstrained bow, to permit a reinforcement of nervous force in empty brain and ganglia.

Be it known at once that none of these islands offer, like European resorts, health in one hand—and a chalice of dissipation foaming full in the other. Here are only eternal summer, delicious fruit, birds that sing and flowers that bloom every day, courteous people and comfortable homes—all at trifling price.

With rare exceptions, streets are empty and people sleeping before nine o'clock. Amusements end with the day, and an hour's quiet chat at club or at home, following the usual late dinner, well prepares a nervous invalid for a calm, restful sleep. Evening parties, except in Jamaica and Trinidad, are very infrequent, and it may be said with truth that natives of the tropics devote their nights to sleep.

During the day there are beautiful drives among scenery so charming that even its novelty in the way of strange plants and flowers, is but a small factor of enjoyment, over excellent roads and at moderate prices; pleasant walks in quaint old towns, among people whose customs are frequently strange and interesting; visits to shops whose goods are unlike those in our own stores, and very cheap; strolls in early morning to market places where steady rattle of chattering negroes is as odd as are the fruits and vegetables they sell; unending experiments in new dishes at table, which are like a lottery, by no means all prizes, and, above all, the delicious sensation that when breakfast is finished, the day's work is done.

There *are* local newspapers; but in all my island life I never saw a visitor look at one. Dolce far niente indeed, within the tropics, and the hours are too few for the nothing there is to do.

So our patients with tired minds and uncertain brain functions have but to settle quietly down, say good-bye to the ships that brought them hither and regain equilibrium.

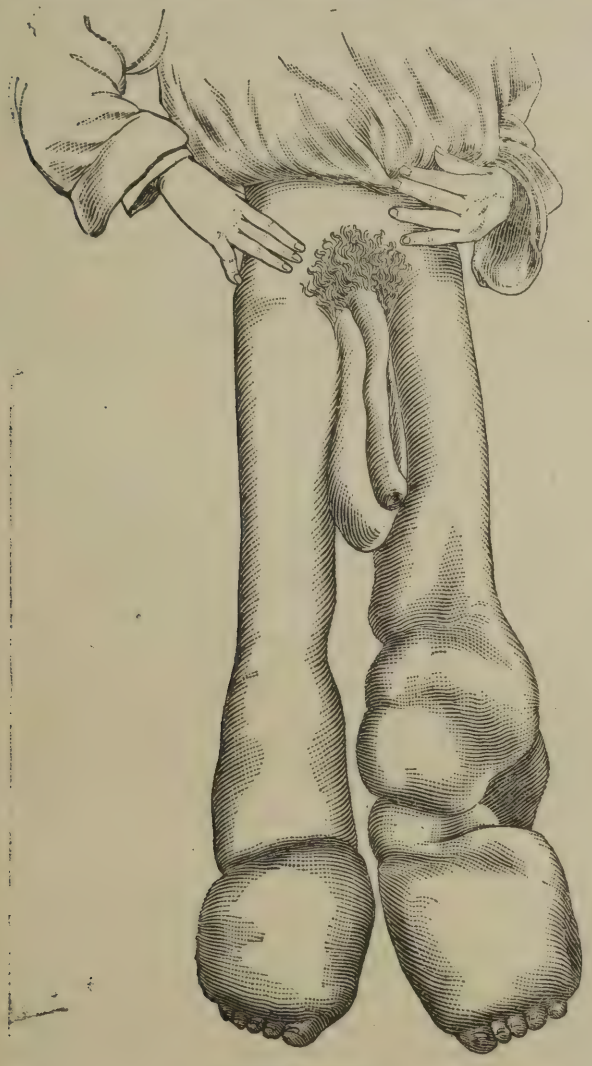
A few years ago, a secretary of the treasury gave concern to family and friends, by failing mind and feebleness of his usual vigorous judgment. Many cares of state and business had tried out his powerful physique, and with some difficulty he was persuaded to go to Nassau. Here I met him and watched his gain for a few weeks, until he felt so well that he would go back to his post. Warnings were useless, he would go. "Why, doctor," said he, "I sleep perfectly, have a splendid appetite, digest well—in fact, I am *well*. I must get back."

I told him that he was only better; that time bade fair to restore brain tone and make him strong again, but that, while certain nervous symptoms persisted as they did, he was still in danger and ought not to return to work. But remonstrances were useless, and within six months after he had resumed his portfolio, death from cerebral exhaustion claimed another shining victim.

That form of brain congestion that is accompanied with slow, full pulse and general lethargy of functions, is promptly benefited by the tropics. It is simply steady heat stimulus that does this, and accelerated skin-action. Surrounded by an atmosphere whose minimum temperature is 68°, and average 78° F., there comes speedy relief to tension of venous circulation in the head. Feet are no longer cold, hands no longer white and flabby; capillaries are full again and brain relieved, and lack of need of heavy

clothing to carry round frees from a weighty load. In a short time, pulsation doubles in force, tone and speed, and there is some comfort in living.

Neuralgias dependent upon lowered general tone, visceral disease or inflammatory conditions, are usually cured by the combined influence of sea and heat. In most islands within the tropics, these are continuous, for none of them are large enough to give inland distance sufficient for dry air, and all towns are upon the coast. A residence in one of them is like being at sea and ashore at the same time, and medical men practising there have told me that nerve pain is a rare occurrence except from wounds. It is generally the first symptom that disappears in Bright's disease brought south, and more than one case of general neuralgia from my own practice has been permanently cured by a single winter there.



ELEPHANTIASIS.

A curious circumstance in this connection is that smaller doses of hypnotics and narcotics are needed than at the North. I found that a twelfth-grain of morphia at Barbados was equal in pain killing power to a quarter-grain in New England, and five grains of sodic bromide would induce sleep in a patient accustomed to take twenty-five in Boston. Inquiry among druggists showed that their average doses of these drugs prescribed was much smaller than ours. This condition is probably caused by lack of interfering nervous excitement and greater general quiet.

Fat people grow thinner here. One lady, who weighed over two hundred when she arrived in Port of Spain, left there, after three months, happy in possession of a hundred and forty pounds and greatly increased comfort, For this pleasant result her constant profuse perspiration and a diet largely of fruit, together with daily carriage exercise, was responsible. All these scarcely attainable elsewhere, certainly not North in winter time.

Thin people, whose lankness is due to dyspepsia, find themselves eating and comfortably caring for an amount of food that would have been impossible at home, and gain weight. In seven days at Martinique I gained five pounds.

Perhaps the most brilliant results of heat in climate cure are seen in those puzzling forms of functional nervous disorder known as neurasthenia. At its worst, there are few diseases whose unfortunate possessor is regarded with more dread by his physician. There is so little to do, and the patient demands so much! Well, doctor, if you can persuade him to take the West Indian voyage, you will probably have one patient less when spring comes. Sea-sickness and fidgets are mortal enemies, and active vomiting leaves small time for querulous complaints. By the time St. Kitts is reached, the patient is ready to go ashore and enjoy novel sights as well as any one, and the entire lack of sympathy for fancied disease that strangers exhibit is a better cure than strychnine or steel. Then, whatever may have been the cause of trouble, it is gone. New surroundings, strange sights, and an atmosphere without any sharp points in it combine to keep the mind busy and soothe uneasy nerves; so that the neurastheniac finds himself wondering, some fine morning, that he has forgotten to complain.

I am assuming in this statement that there is no organic complication. When there is, I give the disease another name.

In all derangements of the heart this climate is invaluable. In valvular diseases, arterial stenosis, and fatty degeneration, great comfort follows the change. All symptoms are greatly ameliorated or disappear, and the amount of comfort obtained, almost at once, is striking. This is due, I believe, to relief of cardiac and arterial pressure by distension of skin vessels by heat and its relaxation, together with steady barometric pressure and absence of excitement. A single case in point may be cited, and might be added to by others.

A. B., an army surgeon, contracted acute rheumatism in 1861, from exposure. The attack lasted six weeks, with frequent metastasis, and was followed by endocarditis, from which an excellent recovery was made, and nothing thought further of the matter. During the battle of Antietam, eighteen months later, he was struck on the chest by a spent piece of shell, which merely prostrated him, and that also passed unnoticed. Not until 1876, fourteen years later, did serious symptoms occur, which then assumed such serious proportions that a consultation was ordered, and examination by three of the leading chest specialists in the country revealed an aortic stenosis, and they agreed that life must be brief; one of them, Prof. Loomis, giving two weeks as the probable extent.

But the doctor was plucky; and knowing, from experience, the good effect of warm climates in similar cases, started promptly for Cuba, whence he returned, after two months, in apparently sound health. All constitutional signs had disappeared, and a second examination gave greatly decreased murmur, com-

pensatory dilatation without weakness, nearly normal capacity for running and climbing, and normal muscular strength.

This state continued until winter came again, when the old weak feelings, pain over heart and down left arm, and inability to mount stairs, all returned. This time he did not wait for any consultation, but started at once for sunny lands, whence he again returned, in early spring, well.

Briefly, these journeys have been repeated every winter since, and my friend is in the enjoyment of excellent health, immense capacity for work and enjoyment, and the two weeks' lease of life has expanded to fourteen years, with fair prospects for fourteen years more, if cold be avoided.

In thus sketching briefly some diseases that are benfited by a visit to the tropics, I by no means present that climate as a panacea. Certain maladies get well there, others grow rapidly worse; and, in the next paper, it is my purpose to speak of the latter—to warn against going South, as so far I have advised it.

MARTINIQUE, W. I., March, 1890.

THE PRESENT STATUS OF HERNIA OPERATIONS.[1]

By J. W. KIME, M. D.,
FT. DODGE, IOWA.

MR. PRESIDENT AND MEMBERS OF THE IOWA STATE MEDICAL SOCIETY:

Were it not that my subject is very much simplified, by reason of the fact that I can briefly say of a large majority of hernia operations, that they have been abandoned, I could scarcely presume to enter upon the consideration of so broad a question in so brief a time. But the methods accepted by surgeons at the present day as truly meritorious are few, though the radical operation which is to cure all herniæ and annihilate the lucrative truss business, is still undevised.

Few surgeons have as yet reached that state of advancement where they must not still decide, in any given case, where to use the truss, the knife, or leave the patient to palliatives, and to the kindly processes of nature. The variety of hernia, its reducibility, the condition of its circulation, its size, contents and complications; the duration of its strangulation; the age, condition and circumstances of the patient; the efficiency of truss pressure, and many other data, still constitute the premises upon which the careful surgeon bases his conclusion.

There can be no doubt that many cases of hernia have recently been subjected to operation by various methods that should have been treated by less heroic measures; and there is danger of the radical operation falling into disrepute, except as an addendum to herniotomy made necessary by strangulation, unless greater care is exercised in the proper selection of cases for operation. The surgeon may show as much learning and skill, and frequently far more honor his profession, in withholding operative measures, as in performing brilliant feats upon patients who are either not benefited thereby, or immediately take their departure for the great beyond.

These facts may not be pleasing to the ambitious operator, but the profession insists upon their observance.

At a meeting of the New York Academy of Medicine in January of the present year, it was plainly the sense of the society, that many of the cases reported as cured by various methods, had since relapsed, so that it was at present impossible to get correct statistics of any of the recent operations, none of which have passed the experimental stage. During the discussion, DeGarmo, a leading authority on the subject, but one who strongly inclines to the mechanical treatment, stated that the reason he did so few herniotomies himself was, that it kept him busy fitting trusses to the patients the other operators had cured.

The truss, though old as the human race, is not a useless appliance of the past. It still continues preferable to operation in all cases of simple reducible hernia, where truss pressure efficiently retains the viscera within the abdominal cavity. Radical cure operations are yet too unreliable to be advised where æsthetics or convenience only recommends them; although we are aware that certain surgeons advise operation in such cases, especially if occurring in children, who may, during a lifetime, be burdened with a truss; but until they show us that operative measures are harmless, and quite certain to effect a cure, or that we are warranted in sacrificing a certain number that the remainder may be more comfortable, we will continue with the truss.

It has become an established principle of surgery that operation should be advised in all cases where the rupture can be replaced within the abdomen, but is not held there by means of the truss; though rarely, in these cases, is more accomplished than the contraction of the hernial aperture to such an extent that the truss will retain the protrusion. To this rule exceptions may be taken only in the aged, or otherwise debilitated, where much danger to life would be entailed by operation.

In irreducible hernia, especially if painful, the demand for operative measures is still more imperative; but in these cases we are often compelled, from nonconsent of the patient, to use, for a time at least, some form of appliance, as the elastic bandage, or the truss with concave pad. In this connection I will state that I have three times used the concave pad in irreducible hernia. In two cases it failed completely, in one of which I operated, while the third must soon submit to operation. The case operated was Mrs. S., aged forty four; incarcerated femoral hernia with cystic tumor of omentum; operated September 8, 1888; omentum and cyst removed; wound closed by deep and superficial sutures. A relapse of the hernia occurred six months later. Truss pressure now very efficient. Rupture has not been down for nearly one year.

In incarcerated and strangulated hernia, after reasonable attempts at reduction have been made, and in gangrenous states, we have no choice but to operate, unless the patient is already moribund when coming under our care. These latter only should be denied the advantages of operation, and left to nature's own resources. But it is truly wonderful what this intelligent agent can accomplish without our assistance. A case occurring in the practice of my colleague, Dr. Ristine, of Ft. Dodge, and to whose kindness I am indebted for the particulars, tends to make us feel that we are not always the *sine qua non* in these matters that our professional pride incites us to assume.

Fifteen years ago the doctor was refused an operation on a severely strangulated hernia. In due season an artificial anus formed, which, under pressure of a pad, gradually closed, and the man is now enjoying health at the age of seventy-five, with only a cicatrix in the groin to remind him of the doctor's certain prognosis.

[1] Read before the Iowa State Medical Society at Des Moines, Iowa, April 17, 1890.

Owing to the great frequency of oblique inquinal hernia it has been the ambition of surgeons to devise an operation that would be both safe and certain to effect a cure. Hence the many procedures recorded in text-book and journal, which not infrequently promise more than experience, at least in the hands of other operators, will warrant. Of these that have now taken their place on the historical page of hernia operations are: The use of caustics to the interior of the sac; Heaton's injections of tincture of iodine, and other irritants which excite inflammatory action; scarifications of the sac; and the subcutaneous wire method of John Wood, of London; though some may insist that these various methods should still be classed among the legitimate operations of the day.

The radical cure operations now prominently before the profession, have for their foundation principles the complete obliteration of the hernial canal, and the restoration of a smooth peritoneal surface on a level with that of the general peritoneum about the internal ring.

This is to be accomplished by either of two methods, the "open" or the "closed." Of the latter Macewen's is the one most widely and most favorably known, of the former McBurney's is the type. Macewen, after carefully dissecting out the sac, exposing it well up to the internal ring, passes a suture in such a manner that the sac is folded up into a shield or bos, and pressed firmly into the internal ring and upper portion of the canal. The wound is then closed by means of sutures, and healing takes place by first intention.

The bossing of the sac is applicable only in those cases where it is comparatively thick and in a healthy state; when injured or sphacelated, and in congenital or infantile hernia, it of course cannot be done.

This operation and its modifications have the advantage over the open method of a much more speedy recovery, and should a truss be subsequently necessary the cicatrix is much better adapted to support its pressure. When the sac, for any reason, is found unsuitable for bossing, it may be ligated at the internal ring, cut away and the canal closed with sutures as before.

Ball dissects out the sac as high as the internal ring, and twists it on itself and thus obliterates it. This plan is inapplicable in the same cases where Macewen's bossing cannot be done, and has the additional disadvantage that in the hands of an inexperienced operator, other structures than the sac may be readily included in the twist. Other operators have ligated the sac, cut and sutured in situ; ligated, pushed it into the ring, sutured it there, and closed the canal behind it; while more recently, Bryant, of New York, slits the pillars of the ring, and, after ligating the sac high up, weaves it back and forth through the slits across the canal which he treats either by the open or closed method, as may be indicated in each individual case. His report is premature, and the original plan of ligating the sac has already been abandoned, as in one case it sloughed, necessitating reopening of the wound; this, together with the fact that one other relapsed, and that he reports but three cases, does not give us a favorable impression of his plan. He now proposes to scrape the interior of the mouth of the sac and pin about one-fourth inch of it shut with a cat-gut suture, and interweave the sac. We await his results.

Weir's method of transplanting a portion of the scapula of a dog over the hernial aperture has not yet been reported upon, either as to the effect upon the patient or upon the canine, but there are many chances of its being unfavorable to both.

Of all operations now before the profession that of McBurney[1] reported February, 1889, is the one most prominent, and promises the best chance of cure of any yet devised. This has as its principal objects the securing of a smooth peritoneal surface, with ample backing in the hernial canal by means of a dense cicatrix formed from granulation tissue from the very bottom of the wound, and by the drainage it secures, reducing to a minimum the risk of septic process or purulent infiltration. After carefully dissecting out the sac, and excising the omentum, if present, he ligates the neck on a level with the peritoneum surrounding the internal ring. The sac is then cut away and the wound sutured in such a manner that it must remain open. This is accomplished by deeply inverting the skin into the wound and stitching it there. The canal is now firmly packed with antiseptic gauze, especial care being exercised to secure firm pressure at the internal ring. The entire wound heals by granulation. No truss is subsequently to be worn.

At the time his report was made McBurney had operated 31 times, with the following results: Deaths, 1; relapses, 1; unknown, 2; still under treatment, 3; cures, 24; total, 31. Of these, 21 cases were of less than 1, and all but 2 of less than 2 years' standing. So that at the time of this report the operation had not yet stood the test of time.

Of it we can only say that it promises more than any other operation so far devised; but that it is radical in the sense of cure in every case, it is not; nor in the hands of the general operator is it devoid of risk to life. The necessary handling of the peritoneum must of itself unavoidably prove fatal in some cases.

In view of the fact that should a radical cure fail to be obtained a truss cannot be so well borne as in the closed methods, the primary cures from the open method must be greatly in excess to insure final benefit to the patient.

Of five cases of non-strangulated hernia I have seen operated by McBurney's plan one, in Bellevue Hospital, proved fatal within forty-eight hours of operation. The others were still under treatment when I left the hospital.

There are few subjects, either in medicine or surgery, that demand so ready and accurate knowledge of what to do and when to do it as in strangulated hernia. There is no time for the perusal of books or refreshing our anatomical knowledge. The best methods of operating and their technique must be constantly in our possession, nor should our knowledge stop short of actual experiment with the intestinal suture; for in those cases where the gangrenous portion is high up in the intestinal tract no other means can possibly save life; but this procedure cannot be undertaken with any hope of success without that previous training, which can be obtained only from vivisection. A case recently coming under my observation painfully impressed upon me the importance of what I have stated. A lady, age 56; strong and robust, consulted me on May 28, 1888. Diagnosis of incomplete, irreducible, femoral hernia was made, and treatment advised. Patient refused to accept the diagnosis, as ten years previously a prominent surgeon of Chicago had pronounced it an inguinal gland, (and here I may remark that no mistake is more easily made, and none more fatal to

[1] Medical Record, March 23, 1889, New York.

the interests of the patient). On July 2, 1888, complete strangulation occurred and a homœopath was called, who failed to recognize the true state of affairs. He, together with his consultant from Des Moines, finally pronounced it an abdominal abscess. The abscess opened over the crural canal, and its discharge was fæces! Food and homœopathic pellets, in the shape of allopathic capsules, shortly made their appearance through the mysterious orifice.

On November 2d I was called to make a post-mortem on the case. On my arrival at the house I was informed that I would find an opening in the lower portion of the stomach, communicating with the abdominal cavity, or abscess cavity, which was a synonymous term, and that this cavity discharged at the groin.

It is needless to state that after so lucid an explanation as this a post-mortem almost seemed unnecessary. With little difficulty I found the opening in the lower portion of the stomach, but, unfortunately, it was a very normal pylorus. The intestine was also normal to a point eleven and a half feet below the stomach, where the ilium was fixed in the remains of the femoral canal.

Nature had made a noble effort, and, though ignorance opposed her in many ways, succeeded in forming an artificial anus, though too near the stomach, and death from inanition finally ensued.[1]

The surgeon would have had three opportunities to save this life: first, by herniotomy before gangrene occurred; second, by incision into the gangrenous mass, thus limiting the process of decay; and later, by intestinal suture.

The problem of hernia is an old one. Even the Divine Architect considered it, but found it impractible to pass the cord and vessels from the abdominal cavity, without leaving a weakened point of resistance in its walls, and ever since that time man has had trouble in keeping his viscera within his abdomen; and after all the investigation and surgical skill that has been applied in the solution of this problem, the pessimist might, with much color of consistency, assert that it is at least very doubtful if ever an operation will be devised that will give much better results in these cases than are now obtained.

THE PATHOLOGY AND TREATMENT OF INTRA-PELVIC INFLAMMATIONS.[2]

By M. B. WARD, M.D.,

Professor of Gynecology in the Kansas Medical College.

MR. PRESIDENT:—Inflammations of the pelvic organs and their sequelæ are the most common diseases with which the gynecologist has to deal.

In the entire scope of medical practice no subject has been so vaguely understood, and no other diseases so unscientifically treated.

It was about thirty years ago that Bernutz and Goupil, by careful clinical observations and post-mortem investigations, first described the true pathology of pelvic inflammations. Many years passed by before their researches were properly understood and appreciated. Some of our prominent teachers and authors still classify intra-pelvic inflammations as parimetritis and perimetritis, and recommend the treatment accordingly.

The demonstrations of Bernutz and Goupil in relation to diseased states of the ovaries and Fallopian tubes, together with puerperal, specific, and other infections of the pelvic organs, have now been proved true by the daily explorations of the pelvic cavity within the past few years. No two men have done more to place gynecology in the front rank of special surgery, than have Bernutz and Goupil.

I am not in the least unmindful that some in my presence may regard with no little suspicion, gynecology as a special branch of medicine and surgery. Gynecology furnishes so extensive opportunities for practical research and advancement, that there seems no good reason why it should not claim a place along with ophthalmology, otology, rhinology, and other branches already generally recognized as specialties. There is, therefore, no occasion to apologize or defend gynecology as an important specialty.

Daniel Webster once said of Massachusetts when one attempted to defame her good name, "There she stands, and the record of her discoveries and brilliant victories is ample excuse for her existence." The same is true of gynecology.

In order that you may fully appreciate the wonderful advancement of gynecology, I will read an extract from a lecture delivered by Dr. Green (not our president), Professor of Obstetrics and Diseases of Women, in the Univerity of Pennsylvania, about a century ago: The ovaria are situated about three or four fingers' breadth from the side of the uterus. They contain small pelluoid eggs, from which they take their names. We don't understand the real use of the ovaria; but as far as can be learned they are of important use in the production of the human species, as may be easily known by taking them away from any animal, which from that time forth is evidently deprived of the means of generation. We believe that both male and female contribute, and in general are absolutely necessary to the generation of the human species; and, I imagine, that the finest part of the male sperm is conveyed to the ovary, and there mixed with the liquor, and at a proper time conveyed to the uterus by the Fallopian tubes, where conception is first made, and continues to go on.

"The cure of dropsy," continues this great author, "of the ovarium by internal remedies, is the same as that of dropsy of any other parts. You may try medicines, but they will seldom succeed, as the ovarium is, in a manner, out of the laws of circulation. The only way is by paracentesis, which may be performed the same way as in the common dropsy, and it is more likely to succeed, as it is seldom like the common dropsy, attended with a scirrhous liver."

"The cure of a laceration is the same," says Dr. Green, "as that of an opening made by the falling out of the morbid spot. It is the business of nature, and all art can do is to keep the part as clean as possible."

M. Bernutz compared inflammations within the pelvis and the same process within the thorax as synonymous conditions. Skene, and some other modern writers, have utilized the same analogy to describe the pathology of intra-pelvic inflammations: "In both thoracic and pelvic inflammations, we have the croupous catarrhal process. We have pleuritis and parenchymatous inflammations on the one hand, and peritonitis and parenchymatus inflammations on the other. In pelvic inflammations we have recovery by resolution, just as in pleuro-pneumonia,

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[1] Riedel also reports a case where inanition ensued, in which the opening into the intestine was eleven feet below the stomach, but was also eleven feet above the cæcum. While in the case here reported the distance above the cæcum was about five inches; still death from inanition ensued.

[2] Read before the Kansas State Medical Society, at Salina, May 14, 1890.

leaving adhesions and bands in one cavity as in the other. When the inflammatory process so interferes with nutrition as to destroy vitality, we have pelvic abscess in the one site, and pyothorax in the other." Bernutz further states that "uterine pathology is as certainly subordinate to a thorough acquaintance with pelvic peritonitis, as pulmonary diseases have been to a complete knowledge of pleuritis, made possible by the discovery of auscultation."

In order that I may impress with greater emphasis than it would be possible in my own language, the truth of Bernutz pathology, permit me to quote him still further. After discussing the theory of pelvic inflammations promulgated by M. Nonat, essentially that of pelvic cellulitis, which until recently held full sway in the practice of gynecologists, he says: "For some time I had no idea that the view propounded by M. Nonat was a mere hypothesis which rested on no post-mortem evidence. And it was not until after the unfortunately fatal termination of two cases, that I was able to prove incontestably that the peri-uterine tumor which, during life, presented all the symptoms of the so-called peri-uterine phlegmons, was not situated in the cellular tissue at all. In the autopsies in question, the tumor, which even after death presented all the usual signs, was seen to be formed by the pelvic viscera being matted by peritoneal adhesions. These researches then have led to the conclusion that inflammation of the pelvic peritoneum, which is the cause of the visceral adhesion, is a disease which is very commonly met with.

"Lastily, I conclude that inflammation of the pelvic serous membrane is symptomatic, and that it is generally symptomatic of inflammation of the ovaries or tubes. Thus great interest attaches to the study of this affection, and it is very important to understand thoroughly the symptoms in order to describe satisfactorily the uterine, and more especially the tubo-ovarian diseases which occasion it.

"It follows, from all this, that unless we get fatal cases to enable us to determine anatomically where the pelvic inflammation began, we cannot state positively whether it came from inflammation of the ovary or of the Fallopian tube, or whether it was caused from the puerperal state by blenorrhagia, scrofula, or any other malady. Thus we can only lay hold, as it were, of the two ends of the pathological problem—the primary diseases and the serous inflammation—the intermediate gap we can only fill up after death."

It is strange, indeed, that the researches of these great men, which constitute one of the most important discoveries in surgical pathology of modern times, should so long remain unnoticed. Their work is a lasting monument to the genius of faithful industry and a painstaking life, which all should emulate. It was, however, left for the perfected aseptic surgery of the day to fill in that "intermediate gap" in life, that they only found after "death had claimed its unfortunate victim."

Dr. L. S. McMurtry, of Danville, Ky., one of the most successful abdominal operators in the southwest, in a paper read before the American Association of Obstetricians and Gynecologists, September, 1889, stated my views so precisely, and in such choice language, regarding the pathology of pelvic inflammations, that I cannot do better than to quote his words:

"1. Intra-pelvic inflammations cannot be properly classified as parimetritis or perimetritis, inasmuch as inflammations of serous and cellular tissues cannot be separated clinically or histologically.

"2. Peri-uterine phlegmon, of Nonat, is as rare as inflammation of the cellular tissue in other parts of the body.

"3. Intra-pelvic inflammation is, as a rule, peritonitis, resulting from diseases of the ovaries and Fallopian tubes, arising in puerperal or gonorrhœal infection, or the miscellaneous infections carried to the endometrium by unclean instruments, tents or medicinal agents, or from traumatism.

"4. Pelvic peritonitis is symptomatic, never idiopathic. Pelvic peritonitis presents every grade of severity. In some instances there is a mere inflammatory spot, giving rise to but little discomfort at the time, and passing away without treatment, leaving a bare trace behind, often found post-mortem.

"A higher grade is illustrated by those instances wherein the peritoneum exhibits sub-serous congestion, transudation of serum, and exudation of plastic material. In a more severe grade there is immense transudation of serum, which accumulates in the pouch of Douglass, corresponding to pleurisy with effusion. In a very high grade the entire pelvic peritoneum is involved, the several stages of the process-congestion, and exudation are followed by suppuration, an affection of fearful proportions, and unless treated surgically, going often to a fatal issue. The sequelæ of pelvic peritonitis depend upon the vitality of the individual, the grade of the inflammatory process, and the area involved. Where the surface is limited, or may be quite extensive, recovery may take place by resolution and leave only slight adhesions behind.

"The product of inflammation may be deposited over the uterus, ovaries, and broad ligaments, leaving these organs imbedded or entangled in a mass of adhesions. As time goes on the exudate passes through repeated stages of congestion into organized tissue, with constant tendency to contraction. Pressure upon the ovaries is followed by inflammation, degeneration and atrophy of these organs. The fimbriated extremities of the Fallopian tubes are imprisoned and destroyed. At each recurring menstrual flux these bands are made tense by congestion, increased in thickness, and more thoroughly organized. In addition to lesions entailed by pressure the secretions are retained, and ovarian abscess and pyosalpinx are common results.

"When the inflammation is very intense, involving sub-serous structures, the vitality of tissues is destroyed, and one form of pelvic abscess is the result."

The diagnosis of pelvic diseases must be passed by nearly unnoticed, for the want of time to do any justice to the subject. I will ask your indulgence, however, while I briefly mention a sample of some of the cases that will present themselves to you for advice, and, probably, treatment.

The patient says she had a miscarriage, some months or years since, or, perhaps, a labor at full term, and was seriously ill for some weeks, finally got up congratulating herself that recovery was complete. "But," she says, "I do not get any strength, my appetite is, most of the time, good enough, but my food does not increase my vigor, and I do not seem to be at all as I was before." She presents a pinched expression, looks pale and anæmic, says she suffers from constipation, cannot walk or stand erect without much inconvenience, has leucorrhœa, irregular and often profuse menstruation, complains of a feeling like something is going to fall out, which she naturally attributes to prolapsus uteri. There is great tenderness upon pressure over the

ovarian region. She walks with a peculiar gait, characteristic of one with a bubonocele.

This apparent condition, with nearly all of these symptoms, may come from an attack of gonorrhœa (innocently contracted), that most insidious and damnable of all the diseases which women are heirs to; or, she may have been exposed to cold, damp weather during her normal menstruation, which resulted in congestion of the valveless veins of the pelvic organs, thus damming up the circulation; inflammation of the ovaries and tubes, and, subsequently, occlusion of the latter, are the sequelæ.

Without dwelling longer on the diagnosis, we come to inquire what treatment is to be suggested. First, what have we generally done for these cases? Have we not examined with a sound (the most dangerous of all the armamentarium known to gynecology), measuring the depth of the uterus, trying to trace its curvature, pry and twist the instrument to see how much the patient can endure without screaming, and, not unfrequently, trying to replace a supposed retroverted or retroflexed condition by a twist of the wrist, as it were, finding, most invariably, a tender and bleeding endometrium with sub-involution, patulous os, etc. And, do we not say to our patients: "Yes, madam, you have a *large, tender, bleeding, prolapsed, retroverted uterus, with ulcerated and lacerated* cervix, which will require six months or a year to cure."

Granting that the unfortunate patient has consented to try the treatment (which we judge proper), what are we in the habit of doing? Under the most careful antiseptic precautions possible with the surroundings, we dilate the cervix, curet the cervix, and, perhaps, the endometrium; apply, on a cotton holder, carbolic acid or tincture of iodine to the curetted surface, and the gaping, abraded and bleeding os; apply to the vaginal fornix tincture of iodine; replace the uterus, if we can, and introduce a cotton tampon to which is attached a silk thread, to facilitate its removal by the patient; and request the afflicted one to return two or three times a week for the same treatment; when the facts are, we are just as liable to do her harm as good, if for no other reason than this, namely, a mistaken diagnosis. The true condition being a diseased state of the uterine appendages, and the uterus is suffering from sympathy with the diseased environment.

If the foregoing is not a true picture, hold up your hand and deny it. I am certainly guilty, most guilty, but I hope none of my hearers are. Is it not true, also, that some of us have excited tubal trouble by our careless methods of conducting examinations of uterine and pelvic diseases?

Did you ever stop to consider how very difficult it is to pass a sound to the fundus uteri without carrying along with it septic germs? These germs, once lodged in the uterine cavity, are certain to migrate to the tubes, where they excite the conditions before described. Beware of the sound, that useless instrument in diagnosis—it is a relic of the past. *Do not use it!*

In this connection, permit me to digress from the main question, and say one word against gynecology, or, rather, against this feature of it. All the ills of women are not centered in the pelvis. Gynecologists ought always to try to trace the causes of disturbed functions to nerve exhaustion, intemperate or careless habits, the neglect of nature's demands, etc., rather than at once try to locate everything below the umbilicus.

There are two principal reasons for this: First, you will quite often find the cause of the diseased conditions without any signs of pelvic complications; and, second, should it subsequently be found necessary to investigate the pelvic organs to locate the exciting causes of deranged functions, you will at least have won the confidence of the naturally timid patient, and your usefulness will be thereby greatly enhanced.

When consulted by women with histories corresponding to those of pelvic diseases, our tact and skill will be put to a severe test to always know the best course to pursue. No routine plan can be always followed. I usually, however, advise my patients that their symptoms and history point to certain conditions, but would prefer to defer examination until another day, so that I can better prepare them for it. I then prescribe a saline cathartic and request them to return within the next forty-eight hours, at which time I will be able to make a more satisfactory examination.

If, upon examination, we find the patient suffering from chronic salpingitis, but in no immediate danger of serious trouble, it is well to place them on small doses of sulphate of magnesia, ten to twenty grains two or three times a day, thereby keeping the contents of the bowels softened, and with this a bitter tonic, advising the patient to feed herself well, exercise moderately, and to be exceedingly careful of exposure to wet or cold weather; and, better still, keep in bed during her menstruation, and report once each week, that she may be kept under the surveillance of her physician.

In addition to this, advise her to use a gallon of very warm water as a vaginal douche two or three times a day. Many of these cases can thus be made comfortable, at least for a time.

There will apply for advice and treatment another class of patients—namely, those who have been treated for perhaps months and years for every imaginable uterine disease, by numerous physicians of every creed, and by every method known to the profession, and out of it, and yet they are confirmed invalids!

What shall be done with this class of cases? Shall we recommend the use of electricity, and absorb the tumors, break up the adhesions, open up the occluded tubes, and spread out the congealed fimbriated extremities?

I request each of you to carefully examine these specimens of diseased ovaries and tubes which I now pass around, and then you can judge for yourselves whether electricity in any form would be likely to make of them healthy organs. Most of these specimens I saw removed by Dr. Joseph Price, of Philadelphia—some of them I have myself removed. I can, therefore, vouch for their identity in case they are so changed in form as not to be recognized.

What a blessing for all concerned it would be, if some method could be discovered to promise a cure in these cases without operative interference. None has yet been found, and the prospects are not very flattering that in our day any will be. In this connection, I cannot refrain from quoting the language of Dr. Price, the most successful and most experienced laparotomist on this continent:

"To all operators recognized as standing in the front rank of abdominal surgery, the defense of early ovariotomy is needless. In this method of dealing with abdominal diseases, ignorance and excuse for waiting are veiled by promises and explained by subterfuge, while the disease is daily making progress and its cure grows more difficult, or, perhaps, impossible.

"Who are the men who refuse to assist these patients under the conditions of which we are now speaking, or are unwilling that their patients should

have the advice or assistance of others, who hold the sufferers while they grip their fees, and, ignorantly or audaciously, tamper with human life?

"The answer resolves itself into this: Either, having stood while progress passed them, they are unable to grasp the present, or they are influenced by the base desire to hold patients who may be scared away by the suggestion of an operation; or, having given an opinion, they refuse consultation, lest adverse opinion be given and prestige be lost; or, else, they are unable to diagnosticate the condition, and hence are unable to come to a conclusion concerning it. I hold, without fear of successful contradiction, that no honest man should fear consultation. That any man is always able to come to an exact knowledge of the condition in abdominal disease, I know, is impossible, and two men, however skilful, may fail, yet, two men can come by honest conference to a conclusion approximately correct, sufficiently exact for the best interest of the patient, which will enable them at last to decide upon the advisability of operative interference."

"Who that has had any extended experience," says Dr. Bantock, of England, "of this operation, has not seen cases, far too numerous, in which the patient has been allowed to go on until the operation has become a forlorn hope? I can, unfortunately, quote too many instances of this."

Dr. Price has *never lost a case on whom he performed abdominal section for pelvic inflammations where there were no complications.*

There are a number of collateral branches connected with this subject which it was my intention to refer to, but I have already said too much, and will close by making a very brief reference to the "modern methods" of operating, stating dogmatically, and without any further explanation regarding my reasons, a few thoughts on this question:

Asepsis, pure and simple, is all that is required in any case of abdominal section. When I say simple asepsis, I do not mean that it is an easy thing to have perfect asepsis in any case, for I consider it a herculean task to make the room, fixtures, patient, dressings, water, instruments, and everybody connected with an operation, perfectly clean. It is the hardest part of successful surgery, but it is satisfactory.

Nothing, by way of irrigation, but pure warm water should ever enter into the peritoneal cavity. Drainage is always demanded when there is a septic condition present. No food of any kind should be allowed the patient for twenty-four hours after the operation. Perfect quietude must be insisted on.

Salines ought to be given freely before the operation, and promptly afterwards. No morphine at any time. The patient must be kept well protected for fear of pneumonia, and not allowed to turn on her side for forty-eight or seventy-two hours. Incision ought to be only long enough to give exit to the tumor, say on the average one inch and a-half. Instruments should be few in number and simple in construction. Silk is preferable to all sutures and ligatures. Dry dressings of the incision are best. Finally, everything depends upon the most extreme painstaking in carrying out the minutest details of the operation.

DISCUSSION.

Dr. Adams, of Kansas City, said it was a pity that time was not given to discuss such a paper. The pathology of intra-pelvic troubles was important to every physician. Never lift the uterus with a sound in replacing it. The whole field of abdominal surgery was covered by the paper.

Dr. Fabrique was pleased with the paper, but thought the incision should be longer in abdominal sections. He thinks we ought to make the incision long enough to see what we are doing. We may often want to see the trouble. The sound is a very useful instrument in diagnosis; we cannot get along without it. He thinks one can use a sound and do no damage.

Dr. Hogsett said he had a number of these cases and could not have done anything without the sound. In retroflexion and antiflexion where they are chronic, the sound must be used.

Dr. Adams said that the uterus which could be replaced by the sound does not need a sound.

Dr. Oldham said he did not hear the whole paper; but said it was important to all to know well the subject discussed in the paper, whether practising as a specialist or not. Sometimes the patient may have suffered from what is supposed to be malaria, when it is really a disease of the pelvic organs. He thinks the sound is essential in diagnosis, and not harmful when carefully used. The breaking up of adhesions is a very grave question.

Dr. Ward, in closing the discussion, said that it was very important to make the incision as short as possible in removing the diseased appendages. Nothing can be gained by a long incision, as we cannot see into the pelvis, and the shock is much greater to the patient, and there is more danger of ventral hernia. He insisted that the sound should not be used indiscriminately in the diagnosis of uterine diseases. It is not necessary to the diagnosis of versions or flexions. Explained the method of bi-manual examinations, which, if carefully practised, would enable any experienced physician to diagnose the position of the uterus without a sound.

DERMATITIS MULTIFORMIS; REPORT OF A CASE, WITH REMARKS.[1]

By W. H. DUNLAP, M.D.

A CASE of dermatitis multiformis which recently came under my observations, and which presented, in fairly typical form, the phenomena usually seen, suggested to me the idea that in addition to the report of the case, a few words in regard to the standing and classification of these particular dermatoses, which are not so rare as was formerly supposed, might form an interesting, if not especially profitable, paper, with which to appear before you. With this semi-excuse for not presenting a purely original work, I will proceed at once to a description of the lesions when first seen. The patient, a woman, presented an eruption widely scattered over the body. It was most profuse on the back—where the individual patches were so numerous as to be almost confluent—abdomen, chest, buttocks, outer and posterior surfaces of the thighs and the arms.

The forearms and legs were relatively free, though numerous scattered groups were situated in these places, special predilection being shown for the flexor surfaces. The face and hands were not attacked, though the neck and parts about the ears were well covered. Only a few lesions were present on the feet, and these were limited to the dorsal surfaces. The eruption was vesico-pustular in character, consisting of numerous pustules, a few pure vesicles and some small bullæ. Grouping was a characteristic symptom. The size of the individual lesions varied from a pin head to a split pea, and larger, but the

[1] Read before the third section of the New York State Medical Association.

greater number were intermediates. In shape they were conical within the larger ones, flattened or umbilicated apices.

The skin on which they rested was decidedly reddened and hyperæmic, the redness being especially well marked around those lesions which were frankly pustular, forming a distinct areola. In some instances, however, the efflorescences were so close together that the patches of eruption seemed to be resting on a generally intensely inflamed skin, no special areola being discernible for each individual lesion. In addition to the pustules, vesico-pustules, and blebs, there were a few papules, or hardish red elevations, scattered here and there over the body. Those parts, as the abdomen, back, thigh, etc., which had suffered most, were covered with thin, yellowish-white crusts, which looked not unlike flakes of pastry, and which were made up of the contents of ruptured vesicles, pustules and belbs mingled, with their coverings, all dried together. On removing these accumulations a smooth, shining, slightly moist, reddened surface was seen, and the same appearance was noted when the top of one of the pustules, or belbs, was removed, only, as a matter of course, greater moisture was present. There was no ulceration in either instance, merely a superficial excoriation. Where larger tracts had been freed from the crusts, as on the back or thighs, the appearance of the red and shining skin was not unlike that seen in eczema madidous. The picture presented was, as you will note, fairly varied, consisting, to sum up, of vesicles, vesico-pustules, and small belbs (which were purulent, or sero purulent as to contents), some scattered papules, and flaky crusts innumerable, together with hyperæmia and redness of the skin, varying from a lively pink to a deep and well marked red. With objective phenomena so pronounced, the patient complained but little of subjective symptoms referable to the skin itself. There were unpleasant and disagreeable sensations of burning, sensitiveness or tenderness, and some itching; not enough to call for scratching, though the patient said that *before the appearance* of the eruption most decided itching was felt, which passed away, or naturally lessened with the complete development of the rash.

The patient's general history is as follows: She is a women of the lower class, and accustomed to hard work; forty-seven years of age; twice married; mother of four children; family history negative. She has never been ill, save with the eruption. She is now passing through the climacteric. She considers her general health good, and says "were it not for the 'skin disease' she would be perfectly well." She is thin, and has a worried and anxious look. Before the first attack, four years ago, she was stout and in good flesh; but since then she has gradually emaciated. The appetite is fair; bowels irregular; sometimes loose, and sometimes constipated; complains of some intestinal indigestion. Tongue slightly furred. Temperature normal. No anomalies of cir culation. Urine negative. Temperature, however, rose in one instance to 101.5° during a relapse, and she stated that she was always feverish and chilly whenever the eruption was about to appear.

Her history of the eruption is as follows: In the spring of 1886, not long after the birth of her last child, two small "blisters" appeared on the side of her chest, just below the axilla, one on each side. These blisters dried down in the centre, and spread on the periphery by the formation of new ones, till quite a patch of disease was formed, and then healed under the use of some salve. In a short time a relapse occurred; the disease appearing on the abdomen, and spreading to the chest and back, when it ceased; and healing, another period of immunity followed till the autumn of 1886, when a violent outbreak took place, quite as extensive as the present one. From this time till I saw her, in April, 1890, she has never been entirely free from the disease, though there has been periods of comparative relief. The eruption comes in crops, before one entirely disappears, a new one develops, and thus the disease is prolonged. The lesions vary; at one time they appear as "water blisters," to quote her own words, while at others they are pustules from the start. This variation the patient thought was due to the condition of her general health; when strong, the eruption being vesicular; when run down, pustular. The outbreaks were usually, if not always, preceded by a "peculiar feeling" in the skin of the parts about to be attacked, which was followed by intense itching, lasting till the eruption was fully developed, when it passed away, and burning, tingling sensations took its place. No change in the appearance of the skin, except sometimes redness, on which later the vesicles, pustules, and blebs appeared, had been noticed; at other times the effloresences arose on an apparently perfectly normal surface, the erythema developing later. The diagnosis of dermatitis multiformis was made, and the patient put on quinine, iron, and Fowler's solution. The beginning dose of the latter was 3 ♏. t. i. d., which was gradually increased to the patient's limit of tolerance, which, in this instance, was 6 ♏. t. i. d. This quantity was continued till improvement was established. The local treatment consisted in the use of a salicylic acid (1 per cent.), starch, and vaseline paste. The diet was not restricted, except that pickles, sugars, pastries, and, generally speaking, non-easily digested foods were forbidden. In the course of six weeks the skin was nearly healed, though during this time a partial relapse occurred, affecting abdomen, thighs, and neck, which lasted about one week. In the seventh week, the body was entirely free from disease, save the flexor surfaces of the wrists, where, from time to time, during the progress of the case, a grouped, papular rash had appeared, and was still present. The site of the eruption on the trunk and extremities was marked by some redness and slight pigmentation, though no scarring, or other evidences of the disease were noticeable. The patient was ordered to continue the Fowler's solution till all of the eruption had disappeared, and then cease by gradually deminishing the dose. The iron she was advised to continue for two or three months. The quinine had been stopped in the second week of treatment. The diagnosis, as already stated, was dermatitis multiformis, and a few words in regard to this class of dermatological affections may not be inappropriate.

Since the earlier attempts at classification of skin diseases, certain anomalous forms of eruptions, characterized sometimes in their courses by the formation of vesicles, vesico-pustules, and blebs, together with other primary and secondary lesions, have been recognized as failing to come under any of the accepted varieties of skin diseases. These forms, standing in an intermediate position to, and partaking somewhat of, the clinical characters of pemphigus, the herpes group and erythema multiforme have received and been described under many names, according to the stage or variety of the disease presented to the observer. The old generic term was hydroa, and under this heading descriptions appeared, not only of cases of hydroa proper—as we understand it

to-day—but of atypical forms of pemphigus, herpes iris and bullous phases of erythema multiforme. The latitude given the term, together with a desire on the part of the profession for a more definite nomenclature, resulted in its abandonment for the most part, and, indeed, I agree with Fox that it is objectionable since, etyniologically considered, it conveys the influence of disease affecting the perspiration. Bazin, however, reintroduced the old name, and it has been accepted for this class of cases by many dermatologists in France, England, and this country, though not generally recognized by the German school.

In 1876 Hebra described a rare disease, of which, at the present time, but twelve cases have been observed, so far as I know. This disease he called impetigo herpetiformis, and it presents many of the same general characteristics, so far as the skin manifestations are concerned, of the disease under consideration. It is "a grouped, small-sized, pustular eruption, the pustules extending peripherally by the formation of new ones, thus implicating large areas. The lesions are pustular from the beginning, and start on the inner side of the thighs and groins, around the navel, breast, axillæ, or on the oral mucous membrane." The general symptoms mentioned were "rigors, high fever, loose or constipated bowels, and high colored urine." The differences between it and the hydroa forms of Bazin may be roughly stated as (1) the uniformity of the lesion, which, in impetigo herpetiformis is a small pustule and pustular from the start; (2) the limitation of the disease for the most part to the puerperal state; and (3) the generally fatal termination of the affection.

Following the work of Hebra on impetigo herpetiformis, Duhring, in 1884 and later, appeared with a series of able papers on dermatitis herpetiformis, in which he detailed a number of cases which, in their clinical aspect, corresponded very closely to those already described by other writers under the names of hydroa herpetiformis, pemphigus pruriginosus, herpes gestationis, herpes circinatus, bullorus, etc. He even went so far as to attempt to include under this head the impetigo herpetiformis of Hebra; but, admitting the correctness of Duhring's generalization for most cases, this view is not universally accepted, since impetigo herpetiformis is held to have characters of its own sufficiently distinct and positive to justify its classification as a separate disease. The papers of Duhring, with one by the late T. Fox, on a "Clinical Study of Hydroa," together with numerous monographs and reports of cases from many other sources, have done much to clear up the former chaos of views, and give us a fairly clear and definite idea of these clinically varied eruptions. The result of these labors has been the unification of the phenomena and their classification under one of the following heads (the terms being regarded as synonyms): hydroa, dermatitis herpetiformis or dermatitis multiformis. Impetigo herpetiformis being generally regarded as a disease *sui generis*, I have chosen the name dermatitis multiformis as more perfectly covering the ground, since one of the principal factors in diagnosis is the polymorphism in the clinical appearances of the disease.

Having thus briefly referred to the history and noted the present unification under one of these heads of the varied manifestations of the disease, let me for a moment call your attention to the principal symptoms, as described by different observers, and, comparing those of the case reported with them, see how far they agree.

(1) Dermatitis herpetiformis, or hydroa, is described as a "chronic, multiform skin affection, occurring in successive outbreaks, the eruption being at one time herpetiform or vesicular, at another pustular; or, again at different periods in the same case, erythematous or wheal-like lesions or bullæ may predominate."

The case reported is essentially chronic: there have been successive attacks, broken by periods of freedom. The first eruption was vesicular; at present it is pustular. Erythema, papules, vesicles, pustules, and blebs have all been present at the same time, thus showing its multiformity.

(2). In dermatitis herpetiformis, the lesions are usually grouped or arranged in circular form, and grow peripherally by the formation of new efflorescences on the borders. In one case the lesions were distinctly grouped, though this characteristic was only noticeable in the newly-developed patches, the crowding together of the individual efflorescences and the great extent of surface involved marking this symptom in the fully developed and older eruptions. Peripheral extension was a specially noteworthy trait of the early attacks.

(3) In dermatitis herpetiformis, itching and burning sensations are usually very severe. The same is true in this case, the itching being specially well-marked *preceding* the appearance of the eruption and *during its early stages.*

(4) So far as location is concerned, the agreement still continues, with the natural differences which the special case always exhibits when compared with the type variety. In both instances the eruption was bilateral; in both were abdomen and flexor surfaces of thighs, arms, and legs affected, while the parts below the knee were comparatively free. The back, it is true, was violently attacked in the case reported, which is not usual, but the variation goes no further.

(5) The course of dermatitis herpetiformis is essentially chronic; relapses are frequent, occurring at intervals of weeks or months, or even longer. Here, again, coincidence is noted, for already this case has lasted four years and several relapses have taken place during this time, and while the patient has at present returned to her home comparatively well, I do not anticipate that the improvement will be permanent, but look forward to a recurrence some time in the future, though it may be months or even a year or so distant.

(6) Finally, the report shows that, during the progress of the case, all the varied phases of eruption peculiar to this class of skin diseases have, at some time or other been present. At its commencement, occurring shortly after childbirth, it might quite properly have been called a herpes gestationis; when the lesions consisted of vesicles in groups, the term dermatitis herpetiformis would have been most fitting. But, considered as a whole, the broader name chosen seems more suitable.

Having thus shown that we are dealing with a fairly typical case of dermatitis multiformis, permit me a word or two, in closing, as to the pathology and treatment of these affections, which more widely extended knowledge and closer observations have shown to be more frequent than was formerly supposed.

As to the pathology, little can be said. Most writers agree that the nervous system is somehow concerned, since cases occur in the overworked, the fagged, the depressed and excited. One author says: "Its occurrence during pregnancy, and recurrence in subsequent pregnancies, show that there is some causative relationship, probably reflex irritation of

the vaso-motor center, and the irritation of this center, either direct or indirect, is the most probable pathology."

Bazin favors a gouty predisposition as a cause; while other observers fail to note it in their cases. Probably future investigation will corroborate the vaso-motor theory, thus allying the disease quite intimately to the pemphigus and erythema multiforma groups.

So far as prognosis is concerned, this seems as unsettled as the pathology. For the milder and purely vesicular forms it is generally good; while for the pustular and severer varieties it is unfavorable. In all cases the probability of relapses should be mentioned, and no cures "guaranteed."

The treatment is comparatively simple. After attending to the ordinary rules of hygiene, change of air, good and easily digested food, etc., our choice of remedies is limited to quinine, arsenic, and belladonna. T. Fox preferred quinine, which must be given in large doses, and which often succeeds admirably. Of the three drugs, however, arsenic is more uniformly successful. It must be given in large doses and pushed to the patient's limit of tolerance, when usually new efflorescences cease to appear, and healing begins. This is generally affected in four to six weeks. Should quinine or arsenic, one or both, fail, then belladonna may be tried. I have never had occasion, in my own practice, to use it; but others say that, in doses of fifteen to thirty minims of the tincture, thrice daily, it has done good service.

Locally, only the simplest applications are needed. Mild and soothing ointments containing boracic or salicylic acid, the ordinary zinc ointment, etc., are amply sufficient. When burning sensations are marked, cooling lotions sometimes act better than ointments. Should the itching be very violent, washes containing carbolic acid, the liq. carbonis detergens, or other antiseptics may be applied.

THE DELSTANCHE INSTRUMENT FOR MASSAGE IN CERTAIN AFFECTIONS OF THE MIDDLE EAR.

By W. CHEATHAM, M.D.,
Lecturer on Diseases of the Eye, Ear, Throat, and Nose, University of Louisville.

THE treatment referred to in the title of this article is quite old, and has many times dropped out of use, and as many times revived. Woakes and others have invented or originated many instruments to carry this treatment out, only to be laid away and forgotten. Theoretically the principle is good, but practically the results have not been so encouraging. While away this summer I met, in Brussels, Prof. Delstanche, an aurist, to whom Prof. Rossa, of New York, had given me a card. I found many of Prof. Delstanche's methods quite interesting and curious. On his operating table he keeps a small kettle holding some antiseptic fluid, and in it no less than thirty silver custachean catheters, the fluid in the kettle kept boiling by means of a gas-jet under.

Prof. Delstanche, when examining an ear, holds his mirror in his mouth, instead of having a forehead band or spectacle frame. I have here with me to-night an instrument originated by Prof. Delstanche to massage the middle ear, to break up anchylosis and adhesions, and to give free motion to an otherwise motionless drum and ossicles. He has two styles of the instrument, the smaller one being intended for hospital use. I think it the best instrument of the two, and by attaching a Seigel's oloscope to it the amount of motion in the membrani tympani can be studied, and the plunge set accordingly. The newer and larger instrument can also be attached to this glass tube and used to cup, or as an artificial leech; but it is as an instrument to massage the middle ear to which I wish to call attention to-night. Some old cases of catarrh of the middle ear with anchylosis of the ossicles, and adhesions of the membrani tympani to the inner wall of the drum cavity, with tinnitus and vertigo, cases on which I had tried all other treatment, and in which I had used the Seigel's oloscope attached to a large ear syringe, and had used the same oloscope by suction with the mouth, with no benefit. It is in such cases as these in which I have used the Delstanche instrument with some benefit. How long this benefit will last I do not know. Men who have used similar instruments say the benefit is of but a few weeks' or a few months' duration. It occurs to me that if the benefit is even so short as that it is of much service, as in a majority of such cases nothing is of service; and such a condition of things makes many people wish for death, and drives some to suicide.

Mrs. R., a widow, thirty six years of age, has what Rossa calls proliferous inflammation of both middle ears. Deafness, tinnitus, and vertigo are hardly bearable; there is little or no tube trouble; considerable inflammation on lateral walls of pharynx. This woman I have treated for years; her trouble has gradually and steadily increased, notwithstanding. She is deaf to all conversation in the left ear; can scarcely hear the loudest voice in the right ear. I continued the inflation as before, and, some weeks ago, commenced using the Delstanche instrument—as yet with no effect in the left ear, but with a most agreeable result in the right. After three weeks' treatment she hears one speaking in a common tone of voice with the mouth close to the right ear. She says she always feels better after its use. I have never used it on one yet who did not ask for it the next treatment. When I first commenced using the instrument I caused some pain, and have occasionally produced small hemorrhages of the M. T., or into the walls of the canal. This apparent violence, which in some cases leads to a little after-reaction, has had much to throw such instruments into disuse. I have used this Delstanche instrument many times, and have yet to have any permanent disagreeable results follow. As I stated before, the patients always ask for it again.

Another use to which I put it is to cleanse out small pockets in obit. med. suppurativa, and to draw pus from the middle ear when the hole in the M. T. is either small or high up.

This little instrument can be put to many uses with much profit. I believe if properly and carefully used, it will relieve many of those cases (as much as they can be relieved) in which removal of the M. T. and ossicles is now advised. None of the cases in which this operation has been done have gotten permanent relief, yet the operation is advised and performed; some of them doing well for a year or more, then gradually going back to their old condition.

The larger instrument of the two, I forgot to say, can, by closing or opening a little vent, be converted into an instrument for suction alone, or suction and compression.

THE *California Homœopath* reports a new natural mineral water, called "Skookem Limechen Chuck," "a remedy for all ailments." Next.

TREATMENT OF GONORRHŒAL BUBOS WITH PARENCHYMATOUS INJECTIONS OF IODINE.

By P. S. DONNELLAN,

Licentiate Royal College of Surgeons and Physicians, Ireland; Member of the Medico-Chirurgical College, Philadelphia.

MR. X., aged thirty-five years, consulted me on the second of June, and stated that a week previous to his visit he noticed a swelling in each groin, which grew larger and more painful on exertion. On examination I found he had a well-marked gonorrhœa, the existence of which was unknown to him, but he admitted it must have been the result of contact two weeks before. I also found a large bubo in each inguinal region, each measuring two and one-half by one and one-half inches. The possibilities of abscess formation and subsequent disfigurement being explained to him, he agreed to carry out any treatment that would prevent such a complication. This being the case, I adopted a plan of treatment which has been very successful in similar cases amongst the soldiers of the British army—viz., absolute rest in the recumbent position, with the continuous pressure over each bubo, of a shot-bag containing eight ounces of fine shot. He was placed on a light diet of milk, soups, etc., alcohol in any form being forbidden, and given the following mixture:

℞.—Antimonii et potassæ tart. ..... grs. iv.
Magnesiæ sulphatis ..... ℥ j.
Elixir simplicis. ..... ʒ iv.
Aquæ cinnamomi q. s. ad..... ʒ ij.
M. et Sig.—A teaspoonful in water night and morning.

As the patient was of plethoric habit, this combination acted well as an antiphlogistic and saline cathartic. For the gonorrhœa the following injection was prescribed:

℞.—Morphinæ sulphatis..... grs. ij.
Ext. hydrastis fluid..... ʒ ij.
Bismuthi subnitratis ..... ʒ j.
Mucilagis acaciæ..... ʒ iv.
Aquæ destillat q. s. ad..... f ʒ iv.
M. et Sig.—Half an ounce to be used as an injection night and morning; the patient being instructed to wash out the urethra with a two per cent. solution of boracic acid, before using the injection.

Under this treatment he improved rapidly; the gonorrhœal discharge ceased on the fourth day, and the bubos diminished to the size of filberts. Unfortunately, however, before the cure was complete, he had to resume his occupation, which was a very active one, and, at the end of a few days, he returned with the bubos as large as before, though there was no return of the gonorrhœa. As his business engagements rendered it out of the question to resume the old treatment, he was directed to rest as much as possible, and each night to apply tincture of iodine to the enlarged glands. I also gave him gradually increasing doses of potassium iodide, commencing with gr. iii, well diluted, after each meal, with the object of promoting absorption. After a week's trial, as the results were not very encouraging, I decided to try the parenchymatous injection of tincture of iodine, so successfully employed in the treatment of hypertrophied tonsils, goitre, etc., and injected ten minims of tincture of iodine (U. S. P.) into the substance of each tumor every alternate day. The improvement was most gratifying; after the third injection the bubos had almost disappeared, and at the end of a fortnight, it would have been difficult for the most careful observer to have detected any enlargement of the affected glands.

It seems to me that in these cases of gonorrhœal bubo, where the patient, owing to business engagements, is unwilling to remain at absolute rest—where suppuration is almost inevitable and its prevention of the highest importance—the parenchymatous injection of iodine is specially indicated.

A few points are to be observed in administering the injections. The hypodermic syringe and needle must be sterilized by being boiled and afterwards washed with a solution of hydrarg. bichlor, 1 to 5,000. The site of the proposed injection must also be made aseptic in the usual way, and sprayed with a four per cent. solution of cocaine to render the operation painless. Ten minims of the tincture of iodine are now drawn into the syringe, the needle elevated, and the piston slowly pushed in to expel any contained air. The needle is carefully washed with the bichloride solution, and about three minims of a four per cent. solution of boracic acid is drawn into the syringe, the object of this being to prevent any of the iodine coming in contact with the subcutaneous tissue, and thus avoiding the danger of setting up a suppurative inflammation. For the same reason the needle must be passed vertically into the substance of the tumor, before its contents are discharged. These precautions being observed, the operation is entirely without danger, and in my hands I have found it quite successful.

1028 ARCH STREET, PHILADELPHIA.

Society Notes.

PENNSYLVANIA AND MARYLAND MEDICAL ASSOCIATION.

THE thirteenth annual reunion of the Pennsylvania and Maryland Medical Association was held August 28, at Highland Park, York, Pa. The meeting was in every particular a success. It was opened by an address of welcome by Dr. T. C. Gable, of York, President of the York County Medical Society. After welcoming the guests on behalf of the society, Dr. Gable briefly outlined the history of the association, and dwelt upon its social nature, saying that they had not assembled for the discussion of scientific problems, but for the enjoyment of the hour and a kindly interchange of social feelings.

The address of Dr. Gable was fittingly responded to by Dr. J. M. Deaver, President of the association. Short addresses were also delivered by Dr. J. F. Packard, of Philadelphia; Dr. John Morris, of Baltimore; and the Mayor of York.

The addresses were followed by the annual dinner, after which the business portion of the meeting was transacted. The following officers were elected:

President, Dr. J. J. Jamar, Elkton, Md. *Vice Presidents*, Dr. J. F. Packard, Philadelphia; Dr. J. Montgomery, Chambersburg, Pa. *Secretary and Treasurer*, Dr. T. S. Livingstone, Columbia, Pa. *Executive Committee*, Dr. A. Craig, Columbia, Pa.; Dr. J. A. C. O'Neil, Gettysburg, Pa.; Dr. S. J. Rouse, York, Pa.; Dr. W. T. Bishop, Harrisburg, Pa.; Dr. W. W. Dale, Carlisle, Pa.; Dr. H. C. Whiteford, Darlington, Md.; Dr. J. Morris, Baltimore, Md.; Dr. Ewing, Chester, Pa.

The business being disposed of, dancing was indulged in until dusk. The attendance was good, about two hundred physicians, including their families, being present. The place of meeting was well chosen, the day all that could be desired, and the entertainment the most enjoyable. Altogether, the executive committee deserve great credit for their management, and the members of the association may indeed be congratulated upon the complete success of their thirteenth reunion. THE TIMES AND REGISTER was the only medical journal represented. Among the Philadelphia physicians present were Drs. Packard, Deaver, Edward Jackson and Eastlake.

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WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

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PHYSIOLOGICAL THERAPEUTICS.

IN the *Dietetic Gazette*, Mrs. Rorer quotes the remark of an old physician, to the effect that he would have no trouble treating diarrhœa or dysentery, if he could put his patients in splints. One of the unsolvable problems in medicine is how to induce people to take a due amount of rest, exercise, etc.; in fact, to regulate their habits in accordance with their physiological requirements. It would be a judicious thing to change the title of the physiological chair and denominate its incumbent Professor of the Art of Prolonging Life. This would assist the student in forming some conception of the fundamental importance of this branch. As it is, principally from our own fault in not duly enlightening our patients, the latter take their doses religiously, and generally forget all about the hygienic regulations. It is so much easier to take a teaspoonful t. i. d. than to eat less meat and take more exercise, etc.

An instance of this neglect of physiology came before us lately. A young and successful business man complained of some sluggishness of intellect, indisposition to work as hard as usual, but rather to let things take their own course; continually recurring attacks of catarrhal laryngitis with suffocative sensations; night-sweats, and a decided diminution of sexual activity. He had been unusually active in his habits, but of late had given up his athletic sports and at present takes no exercise worthy of the name. At the same time he was leading a happy and regular life, without monetary anxiety, and he had retained the good appetite and digestion of his active period; even adding to his dietary the use of a moderate quantity of wine. To the resulting plethora all the symptoms are due. Colchicum, salicylic acid and salines give prompt relief to these, and help to confirm the evil; as the knowledge that a few glasses of Friedrichshalle will fix him all right is taken by the patient as a license to indulge in the pleasures of the table. The proper prescription is the regulation of his physiology. He must have animal food once daily; plenty of fruit; no hot drinks or wine; but Seltzer or Underwood water as his only beverage. The Underwood water is almost as pure as distilled water, having only two grains per gallon of solid matter, in which there is neither iron nor organic matter. It is the only native rival of Apollinaris. One must learn to appreciate the great hematogenic powers of the chalybeate waters, to comprehend the absolute necessity of excluding them from the treatment of plethora. For present relief, a walking trip of a week's duration, to be followed by an hour every day in the racket court or at lawn tennis, completes the prescription.

It is not without reason that physicians are said to lose their faith in drugs as they grow older. As they learn the properties of these agents by continued experience, so they learn their limitations; and too often the exhibition of medicines is but a weak excuse for the violation of physiological law. And yet, when we realize that by following the directions here given, this man's death will be postponed many years (and is not death the greatest of human ills, which one hundred thousand doctors in the United States devote their lives to fighting?) the enormous comparative value of the physiological treatment is apparent. But this involves a degree of self denial of which many men are incapable; and they are apt to think that the living a physiological life involves, to quote Rudyard Kipling, "harder work than the importance of this world justifies."

For this reason it is important to apply the remedy at the proper time and in appropriate doses.

First of all, enlist the wife on your side. We will not dilate upon this direction, the importance of which is obvious.

Secondly, send your patient off on the week's walking trip, and to insure congenial company and close adherence to orders with the avoidance of overexertion, and, for many other reasons, go with him yourself.

Finally, when he comes home radiant with health, his head cleared of the nitrogenous fogs, his appetite and slumber recalling the golden days of youth, attack him suddenly with the question, "Would you not like to always feel as you do now?" Then is the time to lay down the law to him, to direct his feet into the straight and narrow path of physiological morality.

The laws of God and man have placed in our hands one of the most powerful of our means for combatting disease: the Christian Sabbath. The utilization of this day in accordance with the divinely-appointed laws of physiology can be made more actively beneficial to our patients than all the calomel in all the pharmacies.

CAPITAL PUNISHMENT.

THE fanatic who recommended mutilation of criminals in order to exterminate the species and permit only a Spartan-like survival of the fittest, was perhaps, after all, on a higher round of the ladder of civilization than his cotemporaries who adhere to the law of capital punishment. The Judaical law of the shedding of blood for blood long ago, gave place to the alternative, "He that is without sin, let him first cast a stone," restricting the right to take life to the Power that endows life; and yet, this same

law of blood is held as a precedent by the barbarians of our day, who judicially murder the criminal. The substitution of electricity for the gallows may be a degree advanced in mercy, but a complete revision of the existing statutes will alone erase the stain that marks every form of capital punishment.

The ancients treated their sacrificial victims like princes, and led them to the altar loaded with garlands of flowers. A fickle and sentimental public of our day feasts the condemned man with danties, and strews his path to the gallows with flowers. The death sentence, that offspring of the law of vengeance, thus transforms the murderer into a hero and a martyr.

We punish the murderer by annihilation, ridding the earth of his foul presence. We try to train the vicious beast, we kill the vicious man. Is this practice consistent with our supposed intelligence and refinement? Punishment inflicted only for retaliation is brutal; when imposed, also, with the view of reforming the culprit, it is just and humane, and the ends of the law are as well served.

The law is designed not only to punish the offender, but to prevent the commission of crime. Does the dread of death-sentence stay the hand of the assassin when his heart is swayed by hot-blooded impulses or steeled by premeditated villainy? At the moment the blow is struck there is no reasoning power to discriminate as to the quality and degree of punishment.

It is urged that the penalty of imprisonment for life cannot be satisfactorily enforced while political corruption has the power to unlock prison doors and release unworthy criminals. Granted that a guilty man would thus occasionally be liberated, may there not, at present, be many an innocent man sent to his death, on circumstantial evidence, by the verdict of men selected for their superior inability to form an opinion? The drop has fallen beneath the feet of many a convict who has protested his innocence to the last moment of his life.

The prohibition of the pardoning power in capital crimes, except on actual proof of innocence, might make imprisonment for life an effectual possibility. The criminal thus removed from contact with the outer world would have no opportunity to further offend the law; while, by a judicious system of convict-labor, he could be made self-supporting.

There is wisdom and dignity in a law which, instead of cutting off a guilty wretch red-handed in crime, sullen and remorseless, gives him the chance, while under punishment, to fully realize the enormity of his offense, and its consequences, so that softened and purified by repentance and wise discipline, he may work his progress to a higher mental and moral state of existence. When by natural laws his career is ended, he is better fitted to pass into the life beyond, not murdered, but reformed, as well as punished, through the justice administered by an enlightened community.—A. M. G.

[A curious instance of two minds pursuing the same line of thought is shown by comparing this editorial with an article in the *St. Louis Globe-Democrat*, of August 17, by Dr. Maurice. Not only are the same ideas expressed, but even the quotations are identical. It is, perhaps, well to add that Dr. Maurice's paper did not come to hand until after the present editorial had been completed. Those who feel an interest in the subject will find Dr. Maurice's paper exceedingly interesting. Ed. TIMES AND REGISTER.]

Annotations.

THE COUNTRY DOCTOR.

THE country doctor is often overslaughed by the supposed superiority of his city confrére; but occasionally the rural member has an opportunity to get back in good shape. At the recent meeting of the Ohio State Medical Society, Dr. R. H. Reed, of Mansfield, reported a case of hematoma of the ovary, upon which he had operated successfully, the result fully verifying his diagnosis and vindicating his skill as an operator.

We are informed by the *Columbus Medical Journal* that previous to the operation the patient had been sent to a well-known city surgeon for diagnosis and advice. This person examined the case, promised a written opinion which he never gave, pocketed his fee, and said all he could to destroy the patient's confidence in her doctor—telling her his diagnosis was mistaken and operation unnecessary; adding some very unjust remarks upon the folly of patients trusting their lives to incompetent country surgeons, instead of coming to the city where men like himself were to be found. The matter is aggravated by the fact that this city surgeon is a Professor of Surgery in a medical college, and on hundreds of diplomas his name is to be found, certifying to the qualifications of these country doctors whom he traduces.

If the facts of this case are as stated, Dr. Reed ought to carry it before the State Society. If such outrageous disregard of ethics be permitted to go on unpunished, our noble profession would degenerate into a greedy, snarling mob. But it is rarely safe to put such credence in the stories of patients as will justify the publication of the offender's name. People exaggerate, often unconsciously; and things sound very differently after transmission by word of mouth. So that, unless one has the most direct evidence of the wrong-doing, it is better to say nothing, and simply avoid having consultations with the man in future. And if we can persuade ourselves that our informant has misunderstood the tenor of the remarks, it is infinitely better for ourselves than to believe a fellow physician capable of such treachery.

Letters to the Editor.

POISONING BY DRIED BEEF.

I HAVE an interesting instance of poisoning which I wish to report. Its interest attaches as much to the origin of the poison as to the cases themselves. The poison in this instance came from eating the ordinary dried beef of the market. I have never seen a case reported from such a source, nor do I find it mentioned in any of my works on toxicology.

The history of the case is as follows: On the night of July 7, 1890, I was called to visit the family of Mr. M. When I arrived I found three members of the family in bed. They had eaten supper at 6 P. M. as well as usual. I found Mr. M. lying on the bed with his face buried in his pillow. George, the one son,

was vomiting profusely, and this was attended with a great amount of retching and violent purging. Miss L., who was boarding at the house, was quiet, but complained of excruciating pain in the region of the stomach and a great amount of nausea, but up to this time she had neither vomited nor purged. They had eaten supper together at 6 P. M., and all took sick within a few minutes of each other. The family consisted of Mr. M. and wife, three children, two boarders, and the housemaid. From inquiry I learned that George (fifteen years old) had experienced a severe burning sensation in the stomach, which was soon followed by vomiting. The mother going across the street for Mr. M. found him in the same condition, and a few minutes later Miss L. appeared, showing like symptoms. All three took sick about 9 P. M., or three hours after eating. On examination I found the temperatures of all subnormal, pulse from sixty to sixty-five per minute, great prostration and nervousness; the vomiting and purging were continuous, and accompanied by extreme pain in the hypogastric region, dryness of the mouth and throat, and in the son there was considerable difficulty experienced in breathing. I was told the supper had consisted of bread, butter, cake, sliced tomatoes, and dried beef. At this time none of the other members of the family were affected, though they all ate of the dried beef, which we concluded produced the trouble. They had eaten nothing else at dinner except canned corn, but Mr. M. had not touched this. I diagnosed the cases as acute arsenical poisoning, and prescribed the peroxide of iron well diluted with water, intending it to act both as an antedote and by their vomiting to wash out the stomach.

I asked for consultation when Dr. Abbott was called. After examining the patients he concluded that it was either the result of arsenic or ptomanies.

At 11 P. M. we administered the one-eighth of a grain of morphine and a half-drachm of bismuth subnit. to Mr. M. and to George, and now Miss L. had her turn at vomiting. I gave her freely of the peroxide of iron and water until I felt sure her stomach was completely emptied. After having given Mr. M. and George the morphine and one or two doses of the bismuth they experienced decided relief, both from the nausea and the crampy pains.

While their pulse had been diminished both in force and frequency they did not demand immediate stimulation. Miss L., on the other hand, was profoundly affected. The pulse became imperceptible at the wrist, and for half an hour she remained in a semi-unconscious condition, but after giving her brandy hypodermically she rallied, and at 1 A. M. her pulse was sixty-four per minute, and quite strong. I left them then for the night. Mrs. M., not feeling well, concluded to take a dose of Epsom salts before going to bed, though she supposed her trouble due to the excitement and worry of the evening.

The next morning, Mrs. M. thought she felt as well as usual, nothing further than a little weak from the effects of the physic. But now the housemaid was in bed. She began purging about 4 A. M., and when I arrived, at 8 A. M., she was suffering considerably from nausea and the depressing effects of the poison.

The temperatures were all normal, except that of Mr. M., which still remained subnormal. The pulse, however, was slow, in all ranging from sixty per minute (in Mr. M.) to sixty-four. There was considerable pain over the stomach on pressure, and the crampy pains were still quite severe at intervals.

On visiting them again, in the evening, Mrs. M. complained of a severe pain under the right arm, which extended up through the scapular region. At times it was quite severe. Her temperature was subnormal ($97\frac{4}{5}°$); pulse, sixty-four beats per minute, and considerable nausea. I ordered her to bed, and prescribed one-eighth grain doses of morphine, and one-half drachm doses of bismuth, every three hours, together with brandy at frequent intervals.

The next day I visited them, and found them about the same, nothing further than that Mr. M.'s temperature had risen to normal, and the housemaid, who was having her regular monthly period, was slightly feverish (99.5°).

On the fourth day, Miss L.'s and Georgie's pulse came up to normal, seventy-two and seventy-six per minute, but Mr. and Mrs. M.'s pulse continued at sixty-five. I saw them again on July 15. They were then all up and around, but were still complaining of want of strength, backache and occasional spells of nausea.

As I have indicated, my treatment consisted of the peroxide of iron as an antidote, and, finally, when I was satisfied that the stomach was completely evacuated, I administered morphine sulph. one-eighth grain every three hours, and bismuth subnit. in one-half drachm doses every half-hour until they had taken four doses, then every fourth hour; brandy being given during the depressant stage.

Carelessly, I forgot to obtain a piece of the meat the first night, and the next day when I asked for it, I was unable to do so, it having been thrown into the "waste basket;" and the butcher, fearing that it would injure his business, refused to give me a piece. So I was unable to have it analyzed.

I last saw these patients August 18, and none of them had entirely recovered from the effects of the poison. They complained of loss of appetite, some pain in the hypogastrium, with frequent spells of diarrhœa, and incapacity for work.

Now, the question with me is, what was the poison in these cases? Was it arsenic? Then, where did it come from? Or, was it ptomanies?

Can we determine which of the two poisons is causing the trouble without an analysis of the meat; if so, what are the points in the differential diagnosis?

C. L. McCann, M.D.

St. Paul, Minn.

The Medical Digest.

To Break up a Cold:

R.—Tr. aconiti ..... ℥j.
Tr. belladonnæ ..... ℥ij.
M.—S. Five drops every three hours.

—*Dorr.*

Pancoast's Pills:

R.—Pil. hydrarg ..... gr.j.
Ext. coloc. comp. ..... gr.j.
Pulv. jalapæ ..... gr.ss.
Pulv. hyoscyami ..... gr.j.
M.—S. For one pill.

For a Tonic in Gastro-hepatic Cases:

R.—Tr. nucis vom. ..... gtt.v.
Acid. hydrochloric. dil. ..... gtt.x.
Glycerini ..... gtt.x.
Aq. laurocerasi ..... q.s., ad ℥j.
M.—S. Before meals.

—*Waln.*

FOR RECENT BRUISES:

℞.—Potas. chlorat..... ʒss.
Tr. iodi,
Aquæ.....āā fʒss.
M.—S. Apply locally.

—*Brensinger.*

FOR CHOLERA MORBUS:

℞.—Magnesiæ pond..... ʒij.
Sp. ammon. arom..... fʒjss.
Aq. menth pip. .....ad fʒiij.
M.—S. Dose, one to four drachms; repeated every hour till relieved.

—*Gubbins.*

ANODYNE LOTION:

℞.—Morphinæ sulph..... gr.ij.
Liq. plumbi subac..... fʒij.
Tr. lavand. c..... fʒj.
Aquæ.....ad fʒij.
M.

—*Barker.*

FOR INTERNAL HEMORRHOIDS:—

℞.—Atropinæ sulph..... gr. j.
Tr. ferri chlor..... gtt. xxx.
Vaseline..... ʒj.
M.—S. Apply locally.

—*Laplace.*

FOR PRURITUS ANI ET VULVÆ:—

℞.—Hydrarg. chlor. corr..... gr. ij.
Acid. hydrochloric..... gtt. x.
Aquæ..... fʒviij.
M.—S. Apply locally, luke-warm.

—*Laplace.*

COUGH MIXTURE:—

℞.—Morphinæ sulph..... gr. ss.
Acid sulph. dilut..... gtt. xj.
Syr. tolu..... fʒj.
Syr. ipecac..... fʒj.
M.—S. fʒj after meals and at bedtime.

—*Dorr.*

FOR CHRONIC BRONCHITIS IN A FAT, PLETHORIC WOMAN.—Dry diet; free purgation; atomization of fluid cosmoline one ounce, with chromic acid, one grain; and the following pill, to be taken every four hours:

℞.—Strychninæ sulph..... gr. $\frac{1}{30}$.
Ergotinæ (ext. aq.)..... gr. ij.
Hydrastinæ..... gr. ij.
M.

—*Waugh.*

FOR GLEET:—

℞.—Aristol..... ʒss.
Fluid cosmoline..... fʒij.
M.—S. Half a drachm to be injected through a soft rubber catheter passed in to the tender spot in the urethra.

—*Waugh.*

BACELLI recommends the intravenous use of quinine in malarial cases of the severer types. His formula is as follows:

℞.—Quinine hydrochlorate..... 15 grains.
Sodium chloride..... 1⅛ grains.
Distilled water..... 2½ drachms.
Filter, warm, and inject into a vein of the forearm, under strict antisepsis, during the sweating stage.

FOR ASTIGMATIC HEADACHE.—Gelsemidine sulphate $\frac{1}{200}$ gr. every half hour will give great relief.

—*Jones.*

WOMEN DOCTORS.—Women who practise medicine suffer from inconveniences at times, as for instance. A man rang a door bell of a female physician at night, crying: "Quick! Tell the doctor to hurry, as my wife is about to be confined." Then the husband of the female physician, who had opened the door, responded: "It is impossible for the doctor to go at this moment. She is about to be confined herself."

—*Lancet Clinic.*

CHATTANOOGA AS A HEALTH RESORT.—I will close with this brief summary: Chattanooga as a health resort presents herself as a place with a pleasant historic interest.

A city easily accessible from all parts of the Union, with a varied and extensive change of scenery; with climatic conditions, all told, unsurpassed by any point in this country.

In comparison with her neighboring cities, her death-rate is the smallest, and her sanitary and sanatory conditions greatly increasing.

And, finally, the variety of diseases is limited, they can be well treated, and with the most gratifying success in the vast majority of cases.

—Townes, in *Jour. Amer. Med. Asso.*

NEW REMEDY FOR PEDICULI PUBIS.—The treatment of pediculi pubis by the usual blue ointment has so many inconveniences with its disagreeable application and its toxic after-effects, that the use of the well-known antiparasitic action of salicylic acid has of late been much extolled. The formula is:

℞.—Salicylic acid..... 2 to 3 parts.
Aromatic vinegar..... 25 parts.
Alcohol (eighty per cent.)..... 72 parts.

The parts are to be rubbed with a piece of flannel wet with the mixture. One application is usually sufficient. Sulpho-calcine is also excellent in this trouble, as well as innocent of any irritation in its application.—*Kansas Med. Journal.*

METHACETINE.—Methacetine occurs in shining, white, odorless and almost tasteless scales. It is an active antipyretic, three, four, or even five degrees being lost within a few hours after the administration of a therapeutic dose. In doses of two or three grains given to a child it exerts a marked antithermic action, the reduction of temperature being gradually produced, and remaining at the lowest point several hours, then gradually increasing. Frequently marked perspiration is produced within an hour after its administration. It has been employed in pulmonary tuberculosis, tubercular meningitis, and in pneumonia, the patients all being children. In one case it produced slight collapse, but never vomiting, ringing in the ears, vertigo, or erythema. In its action methacetine is said to correspond in every respect to phenacetine.—*North Carolina Med. Journal.*

FROM the following extract from the *Medical Press and Circular* we infer that our distinguished fellow-citizens who attended the Birmingham meeting were not received with that cordiality they had a right to expect.

"From what we can gather, the large batch of American doctors who 'took' Birmingham in on their road to Berlin, feel very dissatisfied and hurt at the

way in which they were received, or, rather, not received. To show their discontent, most, or at any rate many, of them left Birmingham early in the week, shaking the dust from their feet on an association which has treated them so scantily. We shall probably hear more of it when the malcontents, many of whom are medical editors, have had time to pen their complaints to their respective journals. It will be interesting to know whether it was an unduly stern janitor or some less humble official or officials who has thus aroused their susceptibilities."

RUFFER reaches the following conclusions in regard to the processes taking place in the diphtheritic membrane:

1. The bacilli of diphtheria are present in the most superficial part of the membrane only; that is, in a place where they are well within reach of medicinal agents—an observation not without interest from the point of view of treatment.

2. In the diphtheritic membrane there is an active struggle taking place between the amœboid cells in the membrane and the micro-organisms. In other words, the diphtheritic membrane is a battle-field for amœboid cells and the pathogenic microbes of diphtheria.

3. The reason why the bacilli do not actually penetrate into the tissues is probably that, as soon as they try to do so, they are arrested by the amœboid cells present in the diphtheritic membrane.

—*Brit. Med. Jour.*

THE TREATMENT OF DYSPEPSIA BY CANNABIS INDICA.—At the Académie de Médecine M. Germain Sée read a paper on the Treatment of Dyspepsia and Certain Other Gastric Affections by Cannabis Indica. He said that the drug should be employed in the extract, at the dose of one-third of a grain three times a day. It acts by suppressing the painful sensations experienced after the ingestion of food, and excites the appetite. However, when an excess of hydrochloric acid is present in the stomach, large doses of bicarbonate of soda should be given at the end of the digestion in the stomach, that is to say, four hours after food had been taken. The Indian hemp had no effect on atony or dilatation of the stomach, but it acts favorably on spasm and vomiting of a nervo-motor origin. In the case of pyrosis the effects of the drug were very pronounced. In conclusion, M. Sée said that cannabis indica was an *effectual sedative* of the stomach.—*Medical Press and Circular.*

ERRATIC PAIN IN LABOR.—At the meeting of the Virginia Academy of Medicine and Surgery, held July 8, 1890, at Richmond, Va., Dr. Johnston reported the following case:

Dr. Johnston had been called, fifteen or twenty days before expected delivery, to a woman, the mother of four children (good labor each time), who complained of a severe pain, paroxysmal in character, occurring on the right side of the neck, and extending down upon her chest to the margin of the axilla. Suspecting the approach of labor, he asked for an examination, but was refused. Early the next morning he was called again, and found the child born. The pains had increased in length and intensity, the intervals growing shorter, until there was suddenly a gush of waters, the birth of the child immediately following. The woman had not a single uterine or abdominal pain, and did not, in the least, suspect the real condition of affairs.

—*Virginia Med. Monthly.*

TREATMENT OF PURULENT PLEURISY.—At a recent meeting of the Société des Hôpiteaux, Dr. Bucquoy communicated some observations of the highest interest on the treatment of purulent pleurisy. They clearly show that "lavage" of the pleura after thoracotomy, and less so after several and repeated lavages, have not the importance which is accorded to them. He summarized his remarks by the following precepts: To operate early, without which there will be produced thick fibrous shells, which cicatrize with difficulty. To practice the operation according to the rules of antisepsy, and to apply antiseptic dressings; to introduce a large drain, permitting the easy escape of the discharges, and frequently to wash the drain to prevent its being blocked up. The cure is often very rapid, the pus becomes serous, and diminished in quantity. Eventually the tube drops out and cannot be put back into its place, and in three days after the wound is cicatrized.

—*Journal of the American Med. Association.*

THE idea of taking away a piece of the vertex of the cranium in order to relieve the pressure exercised upon the cerebrum by prematurely ossified sutures, is certainly a bold conception. M. Lannelongue, however, has recently performed the operation in two cases of micro-cephalus with idiocy, and the results have, surgically, been perfectly satisfactory. The operation consisted in making an incision through the vertex of the cranium, a finger's breadth from the sagittal suture, and extending between the frontal to the occipital sutures, but not involving the dura mater. The scalp wound healed by first intention, and the relief of the tension was promptly followed by a marked increase in the intelligence of the little patients, while the signs of idiocy were modified. It remains, of course, to be seen how far the brain will thereby be enabled to make up for past deficiencies, but the operation itself, though a bold one, is based on carefully-reasoned anatomical and pathological considerations which fully justified the attempt.—*Hosp. Gazette.*

NERVE RESTORATION.—Dr. Glück reported a case before the Medical Society of Berlin lately of a man who was stabbed on the outside of the forearm with a table knife, in August, 1887. The wound was treated in the usual way, but in September complete paralysis of the parts supplied by the radial nerve was found to have taken place. An attempt was then made to reunite the ends of the divided nerve. After careful search for the peripheral and centripetal ends it was found that they were two and one-half inches apart, and that they could not be brought together by any possible means. The ends were then freshened and loosened from their surroundings, and indirectly united by means of catgut loops. Healing took place in ten days. Electrical treatment was then carried out under the direction of Prof. Bernhardt. In the course of a year complete restoration of function had taken place, which the speaker observed could only have been effected by actual growth of nerve elements along the tract of the catgut threads.

—*Medical Press and Circular.*

COCAINE IN THE PTYALISM OF PREGNANCY.—A young and very fleshy woman who was pregnant for the first time suffered extremely and became rapidly emaciated. She had the worst form of ptyalism with incessant running from the mouth, obliging her to have a spittoon by her bed or couch all the time. She also had a very distressing nausea, but with little

vomiting. She was highly scrofulous, and had formerly had some eruption about the anus, under the arms, on the eyelids, and on the neck, for which she had received treatment from a physician previous to her marriage. Beside the usual treatment I tried the effect of local cauterization of the uterine cervix with carbolic acid, which old expedient has benefited some of my cases very decidedly, but it did nothing for her. I then gave three hypodermics of five drops each of the five per cent. solution of cocaine at intervals of three days, keeping her quietly in bed meanwhile. The relief was direct and complete, and, although still very weak, she got up and went about without any further trouble. She was safely delivered of a nice boy on the 16th day of July.

—Carlson, in *The Clinique.*

Lanphear, of Kansas City, in an article (*Medical Review*) favoring the cathartic treatment of peritonitis, says:

1. The saline treatment should be adopted early in simple, acute peritonitis.

2. Small doses of calomel may be given to mild purgation in cases seen after the disease is fully developed.

3. Cases which fail to be relieved by cathartic measures should receive early operative interference.

4. Whenever peritonits has gone on to that stage where the formation of pus is known, or even suspected, to have taken place, abdominal section and drainage are imperatively indicated.

5. When the existence of tubercular peritonitis is diagnosticated, or strongly suspected, operation (exploratory incision) is justifiable.

6. Opium is only indicated in the second stage of peritonitis, and then not because it "forms a splint," but because it relieves pain, sustains the heart and prevents shock—thus combatting the tendency to death.

How Homœopathy Strikes the Briton.—Mr. Brudenell Carter's violent letter, in a recent number of the *Lancet*, in reference to the action of the Ophthalmological Society on a motion of his reflecting on the relations between a certain surgeon and a homœopathic practitioner, has not met with the support he, perhaps, expected. On the contrary he is roundly "slated" by four different correspondents—among them that doughty champion of homœopathy, Dr. Dudgeon. We cannot go into the merits of the case, and will content ourselves with echoing the words of our contemporary, that "the day is probably not far remote when persecution, ostracism, or censure for difference of opinion in belief, will be regarded as not only immoral but absurd. We believe that the best—and, indeed, the only—plan of getting rid of the objectionable features of the legendary homœopathist, would be to absorb and assimilate the sect. Professional digestion ought to be equal to even such a tough morsel, for many mightier unorthodoxies have been swallowed without apparent discomfort in centuries gone by.—*Hosp. Gazette.*

Food for Convalescents.—Cooking for the convalescent is sometimes more difficult than for the very sick. I have always had the feeling that the cook, nurse and market-woman should be one and the same person. A good nurse must certainly be a good cook, and a good cook must certainly be a good market-woman, and whether she goes to the market or not must know how to choose the best things for their purpose, and should have the faculty of skilfully turning all materials to good account. For instance, if she is obliged to use the white of an egg for a milk shake, the yolk should be saved for another dish, if not for the sick room, for the family use. When beef tea is made, the refuse meat may be made into a soup for the family dinner, and while much of the nourishment is gone, the soup additions will make it all that is necessary. The delicacy of cooking frequently depends also upon the cleanliness of the cooking utensils. In feeding the sick this point should be carefully looked into, as the flavor of an unclean saucepan will frequently destroy the patient's appetite for several days. Porcelain or granite iron vessels are best, but those with tin linings will answer, providing the linings are really tin, not lead, and are scrupulously clean.—*Dietetic Gazette.*

Extraction of Dislocated Lenses From the Eyes.—At the meeting of the American Ophthalmological Society, held July 16, 1890, Dr. C. S. Bull, of New York, read a paper on the extraction of dislocated lenses from the eye, whether transparent or cataracious, in which he maintained that in the majority of cases it was possible to extract a lens, dislocated into the vitreous, by external manipulation, without the introduction of any instrument into the eye. The manipulation may be described as follows: The lids are held open by a wire speculum, and the section made upwards with a narrow knife. The speculum is then removed, and the upper lid lifted away from the ball with a wire elevator. Pressure is then made against the lower part of the eye-ball, the pressure being made directly backward; the lens will be seen to rise and to appear at the pupil. Sometimes it comes through the pupil, but occasionally the use of a blunt hook or wire spoon becomes necessary. If continued pressure fails to push the lens through the pupil, or occasions prolapse of the vitreous, some other method must be substituted. For a number of years he had not found it necessary to introduce a spoon into the vitreous chamber to remove a dislocated lens floating in the vitreous.

—*American Journal of Ophthalmotology.*

Cold Baths in Typhoid Fever.—M. Debove, in a paper read at the last session of the Paris Société Médicale des Hôpitaux on the treatment of typhoid fever by cold baths, declared that he had not been convinced by a recent paper of M. Merklen that this was the best treatment. His own mortality during the last six years was 11 per cent., or during the last two years 9.2 per cent. Now, M. Merklen estimates the mortality from typhoid in Paris hospitals treated by cold baths as 9.92 per cent. M. Debove does not prescribe active medication, but believes in keeping up copious diuresis. To this end he supplies his typhoid patients with abundance of liquid, and if the quantity of urine passed does not appear to him sufficient, he "stimulates the zeal" of the attendants to get the patient to drink more; the total amount of fluid which should be taken daily ought, he says, to be not less than five or six quarts. M. Debove, who does not deny the good effects of baths, suggests that they are probably due to the increased quantity of urine secreted, which, as in the case where diuresis is produced by drinking, carries off the *materies morbi* from the system. According to M. Gérin-Rose, who followed M. Debove, still more successful results may be obtained by carrying out the following indications: (1) To produce intestinal antisepsis by means of naphthol and salicylate of bismuth, (2) to lower the fever by means of very large doses of quinine and

warm baths (at 86° F.), and (3) to keep up the patient's strength. Of forty-three patients treated during the last eighteen months in this way only one died.—*Lancet.*

Hepatic Abscess.—At a recent meeting of the Academy of Medicine of Paris M. Hache related the history of four cases of abscess of the liver, of which two were cured and two died, and made the following observations: Pain in the hepatic region, fixed, limited, and exasperated by pressure, whether irradiating to the shoulder or not, may be considered as one of the best symptoms of the existence of an abscess. The pain may be very violent without being accompanied by any complication in the peritoneum or the pleura. However, too much importance cannot be given to it as an indication of the exact locality of the purulent seat, as the abscess may be at a certain distance.

Widening of the intercostal spaces is a consequence met with in all enlargements of the liver, but where one or two are abnormally enlarged the surgeon would be right in supposing that under that spot the liver was more particularly enlarged. Fluctuation cannot be obtained unless the abscess is superficial. Exploration of the organ, even with a large trocar, is inoffensive, but M. Hache preferred the needle, as it allowed to seek for the abscess if not found at the point supposed. As to the subsequent operation, the advantages of incising simultaneously the liver and the abdominal wall, as recommended by Little, were in his mind very doubtful. The after-treatment is simple. All washings or injections should be proscribed if the abscess flows freely and without odor. Iodoform powder poured into the drainage tubes is sufficient. The prognosis must be based on the general condition of the patient, and especially of the digestive tract, for anorexia and diarrhœa are the two great enemies to be dreaded.

—*Medical Press and Circular.*

Farinaceous Foods in the Rearing of Infants.—A hospital physician sends us the following notes of his experience with five children:

A, was suckled only a fortnight, afterward had many different kinds of food, but none agreed until Robb's nursery biscuits were given, on which she began to thrive immediately. Previously her bowels were loose and the motions unhealthy; the first motion after the biscuits were commenced was natural.

B, was brought up on Hard's farinaceous food, beef-tea, and sago, and milk diluted with water. She throve fairly well.

C, was brought up on Robb's biscuits, alternated with milk and water, until he could take beef-tea and sago. He used to vomit the least crumb of bread that was given him.

D, was brought up on Robb's biscuits mixed with water only, which agreed well. Milk and water (once tried) purged him though the milk was good. At three and a half months he still took the same biscuit-pap without milk, except twice a day, when a little milk was added. This was to replace the breast which he had for over three months, but only twice a day.

E, pined away, and got very thin with Robb's biscuits, but throve upon milk and sago; the napkins were quite green till he got the sago. He was nursed not quite a month. He got into quite good condition with milk and sago.

All these children reached adult age and passed through most of the ordinary children's maladies without severe symptoms. D, when aged three, had laryngismus badly for some time, but grew a fine, vigorous youth, although there were some traces of struma. C, had late rickets at a public school, probably from insufficient superintendence of the dinners.

My impression is that farinaceous foods do not quite deserve all the hard things that are said of them, and that while they may be sadly abused if given alone, cases are not rare where they may be of much use. Another point to be emphasized is the marvelous diversities of temper of young children's viscera, the manifold idiosyncrasies so frequently met with.—*Medical Press.*

The Proteids in the Urine in Various Forms of Albuminuria.—The conclusions reached by Paton are as follows:

1. Senator was right in his conclusion that, in all cases of albuminuria, both of the chief proteids of the blood plasma are present.

2. The proportions of serum albumin and serum-globulin may vary within wide limits, the quotient of the amount of serum-albumin, divided by the amount of serum-globulin, being sometimes as low as 0.6, sometimes as high even as 39.

3. In acute nephritis, when blood is absent the quotient is high; when hæmaglolin is present, the globulin is, of course, in excess.

4. As the disease becomes more chronic, the quotient sinks, and in the terminal stages of the disease may sink as low as 0.6. This alteration depends upon the condition of the patient rather than upon the state of the kidney, and is probably related to a similar change in the blood plasma.

5. Amyloid disease cannot be distinguished from the ordinary forms of chronic nephritis by the high proportion of serum globulin, as was formerly maintained by Senator.

6. Maguire's suggestion, that functional albuminuria is characterized by the high proportion of serum-globulin, is not correct.

7. In every case the proportion of the proteids to one another varies much in the course of the day, and, in comparing the proportion of these proteids in different cases, it is necessary to examine specimens of the mixed urine of the twenty-four hours, and to take into account the nature of the diet.

8. The proportion of serum-globulin is always highest during the night. It falls greatly after breakfast, when it reaches its lowest point in the twenty-four hours. In most cases it again rises in the evening. The precise connection of the alteration in this proportion with the taking of food cannot be considered as definitely settled.

9. Milk diet, as observed by Lecorché and Telamon, has a peculiar effect in increasing the proportion of serum-albumin.

10. The amount of proteids passed appears to bear a tolerably direct proportion to the amount of proteids taken, and, excluding milk diet, the increase of the proteids in the urine on a diet rich in these substances appears to be chiefly due to an increase in the serum-albumin.

11. The variations in the proportion of the albumin to the globulin in the urine is frequently so great that we can hardly believe that it is connected with a similar change in the plasma. The few experiments we have performed would suggest that a high pressure favors the transudation of serum-albumin, while a low pressure increases the proportion of globulin transuded.—*Brit. Med. Jour.*

ACUTE CONVULSIVE SEIZURE, THE RESULT OF FISH-BONE IN THE RECTUM.—June, 1857. The author was suddenly summoned to Murray street, Ottawa, to Mr. J. S., aged fifty-seven years, a man of strong habit of body and usually most vigorous in the discharge of business, being a grocer. While behind his counter he was seized with a severe convulsive fit, which had passed over in the space of half an hour. On recovering consciousness his first expression was: "Oh, what a tearing in my bowels!" It being Lent period of the year, and fish the chief source of diet, it occurred to me that a bone might be lodged in the folds of the rectum. The bowel was at once explored. Without much effort I detected a considerable-sized fish-bone imbedded in the rectal folds, and, this being removed, he experienced almost immediate relief. This case at once opens up some interesting points as to nervous distribution in and about this part of the alimentary canal. The cerebro-spinal and sympathetic systems have an important part to play in nervous rectal force. The sacral plexus, as well as the mesenteric and hypogastric plexuses, are the chief collateral centers of reflex and influence. It is now a settled point that contraction of the external sphincter muscle is in part, at least, due to the influence of *a nerve center located* in the *lumbar region* of the spinal cord. This very nerve center is subject to various influences, and the varied distribution of the spinal nerves serves to explain the reflex symptoms of such a case in the present. Through the alimentary tract, how frequently are convulsions the result of imperfectly assimilated food, thus demonstrating how such disturbing influences stir up remote nervous centers, telegraphing, as it were, a convulsive message to the unfortunate sufferer. The ano-vesical center of man has recently been considerably cleared up by the careful observations and deductions eliminated out of cases of injury, as well as lesions of the terminal extremity of the spinal cord and its nerve roots. Kirchoff is of the opinion that the *vesical center* is situated in the conus medullaris, in the region of exit of the third and fourth sacral nerves. One of the most important functions of the spinal cord in its action as a reflex center, normal or abnormal, as the case may be, and in the discharge of the duties of professional life we are constantly reminded of the vast and varied manifestations which spring from spinal and ganglionic nervous centers, quite irrespective of the complex nervous mechanism of brain tissus *per se*.

—Sir James Grant, in *Canada Lancet*.

OUR esteemed contemporary, *The Country Doctor*, corrects our statement that we alone had the hardihood to speak a good word for Billings' census questions, as the *Doctor* himself not only advocated them but filled up and forwarded his blanks. He adds, apropos of our remark concerning the next investigation plum to be given out, that *he* had no mercenary motive in his advocacy.

We are glad of it. Such virtue should be rewarded; and to show our appreciation we will cheerfully dispose of all chance we have of receiving any favor from John S. Billings to the *Doctor* for the sum of two cents, payable in postage stamps not used more than once. Those who are so proficient in ancient history as to remember the Ninth International Medical Congress and the course of the Philadelphia *Medical Times* in that matter, will appreciate our generosity.

TABLE I.—*Anatomical Changes in the Varieties of Hepatic Cirrhosis.*

Varieties.	Size.	Color.	Surface.	Capsule.	Consistence.	Bile Passages.	Position of New Growth.	Newly-formed Biliary Canaliculi
Alcoholic	Usually small	Pale olive.	Granular.	Thick.	Tough.	Nearly empty.	Round groups of acini.	Present.
Cardiac or cyanotic	Usually large.	Dark.	Smooth.	"	"	" "	In centers of acini.	Absent.
Biliary	" "	Olive or pale.	"	Slightly thick.	"	Dilated and full of bile.	Around single acini	Abundant.
Diffuse syphilitic	Large	Brown.	"	Opaque.	"	Normal or empty.	Diffused.	A few only.
Gummatous	Irregular	Pale.	Irregular.	Thick and opaque in places.	Cartilaginous in places.	Normal.	Irregular.	Absent.
Tubercular	Large.	Pale or normal.	Smooth.	Normal.	Normal.	"	Around single acini.	Very abundant.
Malarial	"	Dark pigmented.	"	"	Tough.	"	Around single acini.	Absent.
Scarlatinal	Normal.	Normal.	"	"	Normal.	"	Around single acini.	"
Rachitic	Large.	Pale.	"	"	Tough.	"	Around single acini.	Present.
Diabetic	"	Dark and pigmented or pale.	Granular or smooth.	Thick.	"	"	Generally in centers of acini.	Absent.

TABLE II.—*Clinical Features of the Varieties of Hepatic Cirrhosis.*

Varieties.	Age.	Sex.	History.	Ascites.	Jaundice.	Hæmatemesis.	Size of Liver.
Alcoholic	Adult.	Usually male.	Abuse of alcohol.	Present in two-thirds.	Absent until later stages. A subicteric tinge then only.	May occur.	Usually small
Cardiac or cyanotic	Any age.	Either.	Chronic heart disease.	Not uncommon.	Occasional late.	Absent.	Enlarged.
Biliary	" "	"	Early jaundice.	Absent.	Present and persistent.	"	"
Diffuse syphilitic	Childhood.	"	Hereditary syphilis.	"	Absent.	"	"
Gummatous	Adult.	"	Acquired syphilis	May occur.	Occasional.	"	Irregular.
Tubercular	Any age.	"	Tubercular disease elsewhere.	Absent.	Absent.	"	Enlarged.
Malarial	" "	"	Prolonged malarial infection.	"	Frequently present.	"	"
Scarlatinal	Usually in childhood.	"	Scarlatina.	"	Absent.	"	Normal.
Rachitic	Childhood.	"	Rickets and chronic gastro-intestinal catarrh.	"	"	"	Enlarged.
Diabetic	Adult.	Usually male.	Diabetes.	"	Absent, but skin may be bronzed.	"	Generally enlarged.

—Saundby; *Med. Record*.

Medical News and Miscellany.

No news is bad news—to editors.

EDINBURGH doctors treat one half her population gratuitously.

THE medical college in Nashville has opened an infirmary for private patients.

LONDON is now supplied with tea compressed into cakes, like the Russian bricks.

PROFESSOR WILLIAM F. WAUGH has returned from his annual tour of the Western cities.

CORONER'S PHYSICIAN H. B. TAYLOR, M.D., has been ill from an attack of blood poisoning.

SEVERAL cases of scurvy have been found among the prisoners confined on Blackwell's Island.

A CHICAGO chemist claims to be able to produce aluminum at a cost of fifteen cents per pound.

PATENT medicines have paid the British Government over $1,100,000 in duties during the present year.

UNDER the present statute in Missouri, a person can marry, be divorced, and be married again in thirty-one days.

NEAPOLITAN doctors warn against the native oysters; as they are obtained from water contaminated with typhoid sewerage.

DR. RICHARD A. CLEEMAN, of Philadelphia, was severely injured, last week, by falling on the rocks at Natural Bridge, Virginia.

A TRAINED nurse in Bellevue Hospital gave a patient a drachm of pure carbolic acid by mistake. Death ensued in an hour.

CAMDEN was cut off from its water supply last week owing to a leak in one of the supply pipes at the Pavonia pumping station.

DR. CHARLES P. GRAYSON has returned to the city after an extended visit to Narragansett Pier and other New England resorts.

THE analytical chemist and expert, Dr. Henry Leffman, addressed the Farmers' clubs of Solebury, Horsham and Wrightstown last week.

HARLEM endures an epidemic of fleas. Insect powder proves powerless against the pest; but sulphur fumigation is said to be more effectual.

"NOW that cotton is coming in," writes a Georgia editor, "we will be able to pay ten cents on the dollar in liquidation of our last year's debts."

DR. TREUFEL, of Stuttgart, and his bride (Blanche Willis Howard), will make a visit during the coming season to the father and friends of the latter at Bangor, Me.

DR. SAMUEL G. DIXON, the well-known bacteriologist, has resigned from the University of Pennsylvania, to accept a position at the Academy of Natural Sciences.

QUITE a sensation was created in Newark, N. J., last week, by the finding of the dead body of a young woman who was supposed to have been dissected by a medical student.

A REVOLUTION is taking place in the drinking habits of the Japanese. The rice brandy, which has so long been their national beverage, is rapidly being supplanted by beer brewed after the German method.

IF anything would convert a reasonable man to homœopathy, it is the report of the N. Y. S. P. A. Committee on Adulterations. Of specimens of acetic acid which should have been identical, one was seventeen times the strength of the other.

THE late International Congress was attended by 8,831 persons; made up as follows: Germans, 5,561; ladies, 1,379; non-medical, 116; Americans, 623; English, 353; French, 171; Italians, 140; Russians, 471; Turks, 12; Portuguese, 5.

CHOLERA still spreads, and there are rumors of its appearance in several of the great European centers of population. These generally prove to be cases of cholera morbus; viewed through the medium of fear or the desire of cheap newspaper notoriety.

DR. JUSTIN has succeeded in bursting another gun at Perryville, N. Y., with the usual accompaniment of scores of miraculous escapes among the three hundred spectators. The time and place for the next accident have not been named.

IT is stated that a Bohemian has discovered a combination of chemicals, by the use of which the hardest stones can be dissolved and molded into any shape, the "cast being as hard as flint, translucent, and capable of taking on a brilliant luster."

THE ninth annual meeting of the Surgeons of the Wabash Railway will be held in Decatur, Ill., on the second Thursday of November, 1890. This is the First Surgical Association of Railway Surgeons ever organized, and the meetings have always been of great interest.

COL. WEBER has adopted an effectual method of securing attentive subordinates. A consumptive Hungarian having been allowed to pass through the e nigrant office by Dr. Emiteras and Clerk Conradson, Col. Weber has decided to return the immigrant to his home at the expense of the negligent officials.

DR. H. M. FISHER, Secretary of the American Forestry Association, of which Governor Beaver is President, announced that the Association will hold its annual congress at Quebec, beginning September 3. A telegram received by Dr. Fisher from Quebec yesterday says that Prince George with a number of ships of war will be there.

MORE or less successful attempts have been made to graft nearly all the different tissues of the body, including skin, bone, teeth, muscle, nerves, glands, eyes, mucous membrane, etc. Dr. W. G. Thompson now reports a successful experiment in brain-grafting, a small piece of the brain of a cat being made to grow on the brain of a dog.

GODFREY recommends periodate as a general disinfectant application, especially to cancers; also a spray in whooping-cough, and in the early stages of tubercular consumption. Great improvement followed its use in all of nine cases of phthisis, in which it was used. It is not toxic to human beings, but is a more powerful germicide than sublimate. Internally it may be given in pill, 2 to 4 grains thrice daily; and to children in solution made by boiling 1 grain in an ounce of water.—*Med. Press.*

It is not easy to tell just when the hay fever season begins or when it ends. There are those unfortunates who find themselves smitten by the disease with the earliest spring, and who begin to sneeze with the coming of the first lone swallow, even despite the assurance of the proverb that no summer can come of his making.

There was a great similarity in the manner of death of the late John Boyle O'Reilly and his compatriot, the late Charles G Halpine, better known as "Miles O'Reilly." The latter died in 1868 from an overdose of chloroform taken to alleviate pain and induce sleep. Mr. O'Reilly died from an overdose of chloral taken with a like intent.

The New Jersey State Board of Medical Examiners is constituted as follows: *Regular*—W. P. Watson, of Hudson Co.; G. W. Brown, of Monmouth; W. L. Newell, of Salem; H. S. Wagner, of Somerset; and H. C. Hendry, of Essex. *Homœopathists*—A. Uebalacker, of Morris; and A. H. Worthington, of Mercer. *Eclectic*—E. Tiesler, of Essex.

Judge Thayer, of Philadelphia, says that no person can be legally compelled to leave his home and be treated in a hospital, even if he have small-pox or other contagious disease; it is the right of the patient to stay in his home, if he so desires. It is reported that, through ignorance, physicians sometimes aid in compelling patients to leave their homes.

The Alvarenga Prize of the College of Physicians, of Philadelphia, consisting of one year's income of the bequest of the late Dr. Alvarenga, of Lisbon, has been awarded to Dr. R. W. Philip, of the Victoria Dispensary for Consumption and Diseases of the Chest, Edinburgh, for his essay on pulmonary tuberculosis, which will be published by the college.

The *Medical Record* says that seventeen fatal cases of poisoning from antipyrin occurred in one week in Vienna, during the prevalence of the influenza. In many of these cases the drug was bought by the victims themselves, without a physician's prescription; but, partly in consequence of these fatalities, it is now illegal to sell antipyrin except upon a written prescription from a physician.

Dr. Wetherill, of the State Board of Lunacy, late of the Pennsylvania Hospital for Insane, was in Franklin last week, and investigated into the treatment of an imbecile boy by his father, John Young, of Canal. The condition of the boy was very bad, and Dr. Wetherill has applied for a writ to have him removed to an asylum; his father, although fully able, does not wish to bear the expense.

Of taste, an exchange says that it is not equally distributed over the whole surface of the tongue. "There are three distinct regions or tracts, each of which has to perform its own special office or function. The tip of the tongue is concerned mainly with pungent and acid tastes; the middle portion is sensitive chiefly to sweets or bitters, while the back or lower portion confines itself entirely to the flavors of rich, fatty substances. This subdivision of faculties in the tongue makes each piece of food undergo three separate examinations, which must be successively passed before it is admitted into full participation in the human economy."

In his recent address at the Berlin Medical Congress, Dr. Robert Koch, the eminent bacteriologist, aroused much interest by the announcement that the near future might witness the development of a method for the prevention and cure of pulmonary consumption. As reported by the *Medical Record*, Dr. Koch said that "he had not only succeeded in conferring upon guinea pigs, which are known to be peculiarly susceptible to tuberculosis, perfect immunity against the disease, but had also discovered means of averting the growth and multiplication of tubercle bacilli after inoculation."

The Mississippi Valley Medical Association will hold its sixteenth annual session at the Liederkranz hall, Louisville, Ky., October 8, 9, and 10, 1890. Prominent men in medicine in the Mississippi Valley have been prompt in sending in their names to go on the program. Outside of the Valley the Association is to be honored by the presence and papers of Drs. John A. Wyeth, of New York, and Frank Woodbury, of Philadelphia. The local arrangements are on a grand scale. Louisville knows how to entertain the stranger within her gates. The Association devotes itself entirely to the pursuit of knowledge during the sessions, having no time for quarrels and little spite works. The evenings are devoted to pleasure. The President of the Association is Dr. Joseph Matthews, of Louisville; Secretary, Dr. E. S. McKee, of Cincinnati; Chairman Committee of Arrangements, Dr. I. N. Bloom, Louisville. The American Rhinological Association will meet at the same place and the same time.

The first number of the journal of the State Medical Sodiety, of Arkansas, is before us, in the shape of a neat pamphlet of forty eight pages. The contents consist of the transactions of the society and two original papers, with the editor's salutatory.

In this direction we welcome the appearance of new journals, and hope to see the day when the medical profession will read and support its own journals, and not depend on book publishers and manufacturers for its periodical literature.

The July number of the *Columbus Medical Journal* comes to us in a greatly improved form, with new type, enlarged pages, and less than two months behind time. We are pleased to note the evidences of progress in our contemporaries.

During the month of July the deaths reported in New York City and State were as follows:

	City.	State.
Cerebro-spinal fever	16	54
Typhoid fever	31	96
Malaria	12	55
Scarlatina	24	45
Measles	63	91
Erysipelas	7	12
Whooping-cough	61	129
Croup and diphtheria	125	290
Diarrhœa	1,208	2,864
Acute lung disease	300	706
Phthisis	428	1017
Puerperal diseases	28	60
Other digestive diseases	392	1,024
Urinary diseases	217	497
Circulatory diseases	162	543
Nervous diseases	296	1,092
Cancer	78	242
Accident	187	553
Old age	46	395
Unclassified	573	1318
Total	4,254	11,083
Under five years	2,509	5,602

A NEW private hospital has been started in Halifax under the auspices of the Church of England. Two professional nurses have come out from England to take charge. Instead of the usual staff, patients may be attended by any physician they may choose, and all denominations are admitted.

—*Maritime Med. News.*

THE American Association of Obstetricians and Gynecologists will hold its next annual meeting in the City of Philadelphia, on Tuesday, Wednesday and Thursday, September 16, 17, and 18, 1890, in the hall of the College of Physicians, corner Thirteenth and Locust streets. All physicians interested are invited to attend the several sessions. Dr. E. E. Montgomery is President; Dr. Wm. Warren Potter, Secretary.

THE fourth of the first series of Health Talks, under the direction of the National Woman's Health Association was given August 28, at 1229 Chestnut street, by Dr. A. Victoria Scott, continuing the subject of "First Aid to the Injured," and referring specially to hydrophobia.

The second of the second series was the same afternoon, at 4 o'clock, before the Woman's Club of St. Paul's Church, by Dr. Caroline M. Dodson. The topic was "Every-day Accidents and How to Meet Them." These talks are free to all.

CHARLES H. HEIST, proprietor of the Monument House, Doylestown, met with a singular accident last week. Going to the ice-chest for a piece of ice, the draft of warm air entering the chest when he raised the lid exploded a porter bottle. The pieces of broken glass were thrown in every direction. One piece struck him on the left wrist, cutting a deep gash and severing the main artery. Another piece struck him on the bridge of the nose, cutting to the bone. The blood spurted in a stream from the wrist wound. By pressing hard on the artery above the wound, he checked the flow of blood until the arrival of Dr. F. Swartzlander, who was hastily summoned and dressed the wound.

JUST as Henry George is more discussed here than at home, so Bellamy's "Looking Backward" finds its greatest army of serious students in crowded, discontented England. His notion of a public umbrella has been put into operation in a new street just opened at Brixton, where the sidewalk is sheltered by a glass roof ten feet wide, supported by slim, graceful pillars rising from the curb. Everybody hails this innovation with delight, and there is a great clamor to have its use extended throughout London. Certainly nowhere on the habitable globe is such a contrivance more needed than here, where rain is the rule for seven months in the year, and where silk hats are insisted upon by the severest decrees of fashion and commercial usage.

—London Letter in *New York Times.*

TO CONTRIBUTORS AND CORRSEPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

INTERMENTS in Philadelphia, from August 23–30, 1890:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess	1		Fistula	1	
Abortion	1		Gangrene	1	
Alcoholism	1		Hemorrhage		3
Aneurism of the aorta	2		Inflammation brain	3	9
Apoplexy	6		" bronchi	1	
Bright's disease	11		" bladder	1	
Burns and scalds		2	" kidneys	5	1
Cancer	8		" lungs	8	6
Casualties	10	4	" peritoneum	3	
Cerebro spinal meningitis		1	" pleura	1	
Congestion of the brain		5	" s. & bowels	8	4
" " lungs		3	" spinal cord	1	
Collapse of lungs		2	" tonsils		1
Cholera infantum		25	Inanition		15
" morbus	2		Intussusception		1
Cirrhosis of the liver	2		Marasmus		33
Consumption of the lungs	48	8	Measles		1
Convulsions		10	Ovariotomy	1	
Croup	1		Old age	11	
Cyanosis		5	Paralysis	7	
Drowned		1	Pyemia	1	
Debility	1	7	Rheumatism	2	
Diabetes	2		Surgical shock	1	
Diarrhœa	1	1	Scrofula		1
Diphtheria		11	Septicæmia	1	
Disease of the liver	2		Softening of the brain	1	
" " heart	20	2	Suicide	1	
" " spine	1		Syphilis		1
Dysentery	3	4	Tabes mesenterica		1
Dropsy		1	Teething		1
Fatty degener. of the heart	2		Tumor	2	
Fever, bilious	1		Ulceration of the stomach	1	
" malarial	1		Uræmia	4	1
" puerperal	1		Whooping-cough		7
" scarlet		3			
" typhoid	9	5	Total	204	186
Fracture of skull	1				

NEW PATENTS:—

PATENTS ETC., GRANTED AUGUST 26, 1890

Accident case	F. King	New York, N. Y.
Making ammonium nitrate	E. Carez	Brussels, Belgium.
Atomizer for toilet fans	N. Wickliffe	New Orleans, La.
Dental engine hand piece	C. M. Richmond	New York, N. Y.
Angle attachment for dental engines	Fleury & Goodman	Chicago, Ill.
Electro-magnetic therapeutic chair	F. H. Brown	Chicago, Ill.
Ague remedy	J. W Noland	Rich Hill, Mo.
Crystallizing soda-alum,	E. Auge	Montpelier, France.
Soda-water draft apparatus	A. D. Puffer	Medford, Mass.
Surgeon's case	C. H. Truax	Chicago, Ill.

TRADE MARKS REGISTERED AUGUST 26, 1890.

Liniment for external and internal use. (The words "Po Ho Yo")	G. W. Allaman	Atchison, Kans.
Dental rubber. (The word "Gladiator")	E. J. McCormick	New York, N. Y.
Remedy for burns, scalds, and similar ailments, and for external use. (The word "Phenix")	G. C. Mir	Havana, Cuba.
Astringents, expectorants, vermifuges, liniments, and hair restoratives. (The word "Plantation")	Van Vleet & Co.	Memphis, Tenn.
Blood purifier and tonic remedy for internal and external use. (The words "Jersey Balm")	Nancey E. Hickey	Marathon, N. Y.
Toilet powder. (The word "Ly-co-dine")	Lazell, Dalley & Co.	New York, N. Y.
Fruit flavors. (The words "Bee Brand")	McCormick & Co.	Baltimore, Md.
Remedy for catarrh and kidney and liver diseases. (The representation of a woman stooping forward and covering the spot of pain with both her hands.)	G. Doehrer	San Francisco, Cal.
Liniment. (The words "King Cactus Oil," in connection with the representation of a mythical "King Cactus" in Aztec or Egyptian style)	Olney & McDaid	Clinton, Iowa.
Chill-tonic. (The representation of a laughing baby)	Paris Medicine Co.	Paris, France.

LABELS REGISTERED AUGUST 26, 1890.

"Anti-Chap Skin Soap"	Lyons & Ziegler	Jersey City, N. J.
"Lazell's Ly co dine Toilet Powder"	Lazell, Dalley & Co.	New York, N. Y.
"Rochester Salve"	Rochester Med. Co.	Rochester, N. Y.
"Stuarts' Bone and Nerve Liniment"	E. A. Stuart	Kidder, Mo.

PATENT EXPIRING AUGUST 26, 1890.

Teeth-plugger	T. L. Buckingham	Philadelphia, Pa.

—Charles J. Gooch, *Patent Attorney.*

LOCK BOX 76, WASHINGTON, D. C.

The Times and Register.

Vol. XXI, No. 11. NEW YORK AND PHILADELPHIA, SEPTEMBER 13, 1890. Whole No. 627.

PAGE

ORIGINAL ARTICLES.

INTERNATIONAL MEDICAL CONGRESS, BERLIN, 1890. On the Principles of the Treatment of Diabetes Mellitus. By F. W. Pavy, M.D., LL.D., F.R.S. - - - - - - 233

FURTHER OBSERVATIONS UPON FOOT-AND-MOUTH DISEASE IN ITS RELATION TO HUMAN SCARLATINA AS A PROPHYLACTIC. By J. W. Stickler, M.S., M.D. - - - - - 236

RHEUMATISM AND ITS TREATMENT BY THE TURKISH BATH. By Chas. H. Shepard, M.D. - - - - - - - - - - - - - - - 242

SOCIETY NOTES.

ALLEGHENY COUNTY MEDICAL SOCIETY - 244

Exhibition of Some Urethral Instruments. *Stewart* - - - - - - - - - - - - - 244

Report of Five Laparotomies. *Werder.* - 245

Case of Typhoid Fever. *Kearns.* - - - - 246

THE POLYCLINIC.

MEDICO-CHIRURGICAL HOSPITAL:

For Subacute Conjunctivitis. *Fisher.* - - 247

PAGE

For a Case of Hemoptysis. *Waugh.* - - 247

For Uterine Hemorrhage. *Montgomery.* - 247

Asthma. *Waugh.* - - - - - - - - - - 247

Abdominal Pain. *Waugh.* - - - - - - 247

PHILADELPHIA HOSPITAL:

Compound Fracture of the Tiba. *Laplace.* 247

Tuberculosis of the Ankle. *Laplace.* - - 247

Lupus. *Laplace.* - - - - - - - - - - 247

Tuberculosis of the Epididymis. *Laplace.* 248

EDITORIALS.

THE NEED OF A HOSPITAL AT SITKA. - - 249

UNSANITARY SCHOOL BUILDINGS. - - - - 249

ANNOTATIONS.

Second hand Abstracts. - - - - - - - - 250

Ballooning of the Rectum. *Burghard.* - - 250

THE MEDICAL DIGEST.

Climate and Disease. *Smith.* - - - - - - 248

Beer Drank Out of Gold Lined Silver Mugs. *Schultze.* - - - - - - - - - - - - - 250

PAGE

Puerperal Eclampsia. *Jacobsen* - - - - - 250

Etiology of Tetanus and Vaccination. *Denuce.* - - - - - - - - - - - - - - - 250

Whooping-Cough Treated by Bromoform. *Pilcher.* - - - - - - - - - - - - - - - 250

Boric Acid as a Remedy for Tuberculosis. *Gaucher.* - - - - - - - - - - - - - - 250

Addison's Disease. *Caven.* - - - - - - - 250

Acute Myelitis. *Hopkins.* - - - - - - - 251

Hyoscine. *Sokrt.* - - - - - - - - - - - 251

Treatment of Typhoid Fever. *Teissier.* - - 251

Antipyrin in Dermatology. *Blaschko.* - - 251

Infrequency of Syphilis in English County Practice. *Freer.* - - - - - - - - - - 251

Osteomyelitis from Pneumococci. *Le Bulletin Méd.* - - - - - - - - - - - - - - 252

Operation for Bunion. *Fowler.* - - - - - 252

Influence of La Grippe upon Surgical Operations. *Verneuil.* - - - - - - - - - 252

MEDICAL NEWS AND MISCELLANY, 252

ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - - - 256

NOTES AND ITEMS - - - - - - - iv, xiv

Original Articles.

INTERNATIONAL MEDICAL CONGRESS, BERLIN, 1890.

ON THE PRINCIPLES OF THE TREATMENT OF DIABETES MELLITUS.[1]

BY F. W. PAVY, M.D., LL.D., F.R.S.

THE first point to be considered in discussing the treatment of diabetes is the rationale upon which it should be conducted. A certain deviation from health, resulting in the escape of sugar with the urine, constitutes the condition that has to be combated, and something requires to be said regarding the nature of the deviation, before we are in a position to approach the question of how it should be treated.

The observable phenomena are that, whilst in the healthy subject the food ingested is disposed of in such a manner within the system as not to lead to the exit of sugar from it, in the diabetic subject the food fails to be similarly disposed of, but in part passes out as unconsumed and wasted material with the urinary excretion. It is with the carbohydrate principles that the faulty action lies. These, instead of passing in the direction that results in their consumption and utilization and thus disappearance within the system, as occurs in health, do not follow such a course, but remain in the state of carbohydrate, and are eliminated as such. The chemistry of the body with regard to these principles is at fault. The proper changes do not take place to lead to their being employed as they ought to be, and thereby lost sight of. Represented in other words, through defective assimilative action these principles do not pass on, it may be said, to their proper destination.

[1] From advance sheets furnished by the author.

Thus much is learnt by simply looking at the matter through the light of ingress and egress.

There is no theoretical consideration involved in stating that the carbohydrates in the system of the diabetic fail to undergo those right chemical changes which, in health, lead to their disappearance, and that consequently, whether ingested from without, or formed from the splitting up of nitrogenous matter within, they become disposed of by egress with the urine.

It may further, I consider, be stated that, as a result of the faulty action, the carbohydrate, in the form of sugar, reaches the general circulation in a manner it ought not. No one with any ground of support can contend that the sugar eliminated is formed by the kidney. Whatever appears in the urine has previously existed in the blood flowing to the organ, and osmosis suffices to account for the escape that takes place. I am of opinion it has satisfactorily been made out that healthy urine contains a certain small amount of sugar, and this stands in accord with what is observed as regards the condition of the blood under natural circumstances.

With regard to the presence of sugar in ordinary urine, I conducted a series of observations some years ago, in which I precipitated the sugar by means of lead acetate and ammonia, after previous separation of the uric acid by lead acetate alone. The compound of sugar and lead oxide was then decomposed by sulphuretted hydrogen, and the sugar estimated gravimetrically by boiling with the copper test liquid, collecting the precipitated cuprous oxide, and, subsequently, by the aid of a galvanic current, depositing the copper upon a weighed platinum cylinder. The amount found varied from .098 to .533 parts of sugar per thousand parts of urine.

The condition of the blood, as regards sugar, can be, with precision, defined by the application of the satisfactory analytical procedure which exists at our

command. There is no difficulty, with the exercise of proper attention, in securing the full extraction of whatever sugar is present in a given specimen of blood, and afterwards expressing its amount. From a large number of observations I may state that the quantity of sugar in blood taken under natural conditions does not amount to more than from about .5 to about .8 per 1,000. Under deviations from the natural state, the quantity may be quickly made to rise higher, and this, it may be said, should be borne in mind in looking at results where larger quantities are mentioned by investigators as having been found. I have made analysis of the blood obtained from persons suffering from diabetes, and have a record of seven instances. A general agreement is distinctly recognizable between the amount of sugar escaping with the urine and that found in the blood. Taking one instance where 751 grammes of sugar were eliminated with the urine in the twenty-four hours, the blood contained 5.763 per 1,000; whilst in another with 27 grammes in the urine for the twenty-four hours, the amount in the blood was 1.543 per 1,000. These are the examples giving respectively the highest and lowest figures of the series, both for urine and blood. It is correct to state that the condition of the urine as regards sugar affords an index to that of the blood. This is only what might be expected, seeing that the sugar is a diffusible substance, and that therefore in proportion to its presence in the blood so may it be looked for in the urine. As its presence to more than an exceedingly minute extent is abnormal to the urine, so the same may be said of the blood, and its presence in the blood to the extent occurring in diabetes means the existence of an unnatural state of this fluid, which induces a deviation from healthy action throughout the system. In proportion to the extent of this deviation from the healthy state—that is, in proportion to the amount of sugar reaching the general circulation and thence passing out through the kidney—so will stand the measure of severity of the symptoms of diabetes. Looked at broadly it may certainly be stated that the larger the amount of sugar eliminated with the urine, the worse in every direction is the condition of the patient suffering from diabetes.

We thus trace the symptomatic phenomena of the disease to the abnormal condition occasioned by the presence to an undue extent of sugar in the general circulation.

Whence, it may be next asked, arises this abnormality? I must not enter too far into the discussion of this matter; but the question has a distinct bearing upon the basis of treatment, and therefore requires to be touched upon to a certain extent.

I doubt not it will be conceded by all that the object to be attained by treatment is to diminish the deviation from health as far as practicable. It is only a rational procedure to endeavor to establish and maintain as close an approximation to the healthy standard as our knowledge enables us to effect. Observation shows that the amount of error as regards sugar in the blood, and, following upon this, sugar to be discharged with the urine, is in proportion to the amount of carbohydrate principles, of whatever kind, ingested. It may be said in general terms without, as I have already stated, asserting anything outside the region of fact, that the nature of the error to be dealt with consists in a failure of the power in the system to dispose of the carbohydrates in a manner to lead to their utilization and disappearance. But now arises the question, to what kind of faulty action is this failure to be attributed? Two points of view present themselves for consideration. We start with the fact that sugar is present in the blood to an extent that is unnatural. Is this due to sugar reaching the general circulation in a manner that it ought not? Or is it to be regarded as natural that all the sugar eliminated in diabetes should reach the general circulation, the error consisting of its not undergoing subsequent destruction, thus leading to accumulation?

It would be out of place to discuss these propositions here. The view to be taken rests on physiological considerations. It is known that I have over a long space of time given close attention to the matter, and my experimental inquiries lead me decidedly to affirm that I consider the source of the sugar encountered in the blood, and eliminated in diabetes, to be attributed to its being permitted to enter the general circulation in a manner that it ought not. This view harmonizes fully with the phenomena observed in diabetes. In health I would say the opportunity is not afforded for the ingested carbohydrates to appear in the urine, for the reason that they are not permitted to pass through the liver and reach the general circulation. In diabetes, on the other hand, we know that they do reach the general circulation in the form of sugar, and from the amount of this principle to be found in the urine it can be stated that they must do so in proportion to the amount ingested. I would therefore say that we have here to deal with a failure of power—assimilative or whatever else it may be called—to arrest the passage of carbohydrates through the liver. Being thus permitted to reach the general circulation, they are placed in a position to be discharged with the urine, and hence, according to the amount of carbohydrate principles ingested, so is the amount of sugar eliminated. With such a state of things existing, elimination necessarily follows upon, and is proportionate to, ingestion, and leads to the production of a result which is found to stand in harmony with observation.

I have spoken of ingested carbohydrate being checked by the liver from entering the general circulation as constituting what occurs under conditions of health; and I do not make this statement unsupported by the information afforded by experiment. I have conducted a large number of experiments upon the point, and can say from them that, when the requisite precautions are observed to obtain a representation of the natural condition of the blood of the systemic or general, and of the portal circulation, a large preponderance of sugar is encountered in the blood of the portal vein, if the observation be made a period of digestion and after the ingestion of food freely containing carbohydrate matter. But it is necessary to bear in mind, if the estimation of the sugar be effected, as is the common practice, with the copper test, that a fallacy may arise from the following circumstance, unless measures are taken to guard against it. With the transformation of starch in the alimentary canal preparatory to absorption, it is not, certainly to any noteworthy extent, carried higher than maltose, which, as is known, has a cupric oxide reducing capacity of sixty-one, as compared with glucose at one hundred; and much of it is only carried into a dextrin with a lower cupric oxide reducing power still. Hence the form of carbohydrate derived from starch, which reaches the portal system, does not possess the cupric oxide reducing capacity of glucose, but something more or less considerably below it. As an actual fact, I have a recorded instance in which the product contained in the portal blood after the

ingestion of starchy food possessed a cupric oxide reducing power standing as low as twenty-one, as compared with glucose at one hundred. In this instance, if reliance had been placed upon the ordinarily conducted method of estimation, the amount of carbohydrate present would have been expressed at only about one-fifth of what it really was. With a form of carbohydrate other than glucose existing, it is necessary to bring it into glucose by boiling with dilute sulphuric acid, to permit of the true amount being determined, and this has been the plan of procedure of late years adopted in the researches I have conducted.

I have considered it necessary to enter into these preliminary details. They display the nature of the faulty condition that has to be dealt with by treatment. Sugar reaches the general circulation in a manner that it ought not, and to its presence in the system are due the various symptoms belonging to diabetes. Through reaching the general circulation it becomes eliminated by the kidney, and is lost. The disease thus involves a sacrifice of material which ought by rights to be turned to account; but this is a point that has but little bearing on the production of the phenomena that are observed in connection with the disease. If it were only a question of waste of the carbohydrate principles of food, there would be no reason against their being taken and allowed to run off. Provided a sufficient amount of other alimentary principles were consumed to meet the requirements of life, no particular harm need arise from the sacrifice of the material occurring. What, it may be said, in reality inflicts the harm is the altered constitution of the blood, occasioned by the presence in it of the sugar which passes through the system to the urine. In proportion to the largeness of the amount of sugar thus traversing the system in the blood, so will be the extent of deviation from the natural state, and so in correspondence the impairment of health that will be found to exist.

The class of cases to which these remarks apply is that in which the discharge of sugar is susceptible of control by treatment, and the class embraces the majority of the cases in which the disease sets in after the middle period of life.

In such instances, starting with the indigestion of carbohydrate, there follows, briefly summarized, as a consequence of the want of proper transformation or assimiliative power within the system, an accumulation of sugar in the blood attended with its discharge by the urine. Accumulation of sugar in the blood leads to the production of symptoms proportionate in severity to the deviation from the natural state. The plain object before us is to reduce this deviation as far as is found to be possible.

We cannot be wrong in endeavoring to attain as close an approach to natural conditions as circumstances permit. If the chemistry could be set right, and sugar be prevented reaching the general circulation, the disease would be removed; but it may not be possible to restore the transformative or assimilative power which has become impaired or lost, and then the only way of arriving at what is wanted is to withhold from introduction into the system the alimentary principles which, owing to failure of power to properly dispose of them, cannot be of service, and which, by leading to the passage of sugar through the system, established an unnatural condition, and thereby inflict positive harm.

As long as the passage of sugar through the system is prevented no harm takes place. In the course of all my experience in diabetes I have never known anything serious to arise as a part of the disease so long as the urine has been kept from sugar. There is nothing, in fact, to form the source of trouble, seeing that there is not the abnormal presence of sugar in the circulation to occasion deviation from the healthy state. On the other hand, when sugar is passing through the system, and the remark applies in proportion to the amount passing through, not only are there to be observed the symptoms ordinarily consequent thereon, but a constant state of insecurity exists, from the danger of the supervention of the serious issues known to follow upon the disease. Moreover, with the unnatural state occasioned by the presence of sugar, nutritive action is not carried on in such a manner as to properly maintain the general strength. As a consequence, the general power becomes sapped, or prematurely exhausted, and the system weakened, and rendered less able to resist the effect of pernicious influences. Such is not the position when sugar is not similarly traversing the system. Indeed there is nothing to render the state essentially different from that ordinarily existing.

The contrast between the two conditions—that is, where sugar is allowed to abnormally exist in the system, and where it is prevented from doing so—is well shewn in cases where the disease has run on for some time without being recognised, and is subsequently controlled by dietetic treatment. What will be observed in such instances will be a gradually advancing impairment of health and increasing severity of the symptoms of the disease, and it is right to assume that progress in the same direction would run on, and the patient grow worse and worse, if the condition continued to be left to itself. Whilst matters are thus proceeding it happens, say, that the existence of the disease becomes recognized, and, if the case be such that the sugar is susceptible of being removed from the urine by the exclusion of the carbohydrate principles from the food, and this exclusion be carried out, this alone will suffice, not only to check the downward progress occurring, but to bring back health and strength to the patient.

The first consideration, therefore, in the treatment, is to control by dietetic measures the passage of sugar through the system. The real point, however, to be aimed at, is to restore the assimilative powef over the carbohydrate elements of food, and until this has been accomplished it cannot be said that a cure has been effected, but only that the disease is held in subjection and prevented, as long as the condition can be maintained, from leading on to an unfavorable issue. What most conduces to this desired restoration of assimilative power is the maintenance of a normal state of the system by keeping it free from the passage of sugar through it, and in this way bringing a healthy condition of body to bear in helping to promote a removal of the faulty state.

According to my own experience, opium and its derivatives codeine and morphine are the medicinal agents which, more than any others that I know of, assist in the actual cure of the disease, by which I mean a restoration of the assimilative power which has been impaired.

The influence of these agents may be witnessed in cases where the sugar has been brought down by diet to a certain point, but is unsusceptible of entire removal from the system by dietetic treatment alone. The complete removal may then be sometimes observed to follow the subsequent administration of the drug, shewing that the medicinal agent has acted in the direction of exerting a restraining influence over the abnormal production and elimination of sugar.

When cases of a favorable nature, that is, cases occurring above the middle period of life, are treated by those combined measures, and the treatment is steadily carried on for some time, it is a matter of common observation that the system of the patient becomes able to tolerate a certain amount of carbohydrate food, without its leading to the elimination of sugar. Often, with strict observance of the required treatment, the assimilative power is found to become so far re-established that a fair amount of the carbohydrate principles, or even an ordinary diet, may be taken without leading to the elimination of sugar. When this is the case, carbohydrate principles, according to the extent found to be tolerated, may be taken without occasioning harm; but the object is to keep below the point at which the escape of sugar takes place, and when this is done actual benefit, instead of injury, is derived therefrom.

Here I may refer to the aid afforded by the quantitative testing of the urine. It is absolutely essential, I consider, in the management of a case, to possess the knowledge thus supplied, not only for the purpose of regulating the treatment according to the progress made, but also for keeping a check upon the manner in which the directions given are being carried out. When in a case it is found to happen that the assimilative power has been restored, it is permissible to consider that an actual cure has been effected; but it is always requisite to bear in mind that a weak point has existed, and that it is advisable to avoid unduly taxing a power which has previously given evidence of being at fault.

FURTHER OBSERVATIONS UPON FOOT-AND-MOUTH DISEASE IN ITS RELATION TO HUMAN SCARLATINA AS A PROPHYLACTIC.

By J. W. STICKLER, M.S., M.D.,

ORANGE, N. J.

ON December 1, 1887, a paper upon the above subject was read in the presence of, and discussed by, the New York Academy of Medicine. Since that time I have obtained from Dr. M. K. Robinson, of Dover, England, additional statistics which he has secured for me at considerable personal inconvenience, and which are, I think, of sufficient interest to quote in connection with what has already appeared in relation to the matter under consideration.

First, let me review enough of my former paper to present clearly the subject as we are now to consider it.

During the early days of February, 1884, a remarkable outbreak of sore throat occurred in Dover, England, which was due to the drinking of milk obtained from cows affected with foot-and mouth disease. During the week ending February 9, two hundred and five persons were attacked with the disease. "The majority of persons who suffered during the Dover epidemic presented two prominent symptoms in common, viz., inflammatory sore throat and enlargement of the lymphatic glands;" but the lesions produced varied considerably in different cases. The vesicular eruptions were followed either by a raw, red, œdematous appearance of the mucous membrane, or white patches, and the ulcers which supervened, assumed in many instances a chronic character, with thick puckered edges, and were a long time in healing.

When the inflammation of the tonsils went on to suppuration, recovery was much slower than after common quinsy, and the enlarged cervical glands remained tender, red and swollen long after the throat symptoms had subsided, resembling, in this respect, the sequelæ of scarlet fever. (I am quoting now from Dr. Robinson's original paper on the Dover Epidemic). Erysipelas and purulent formations were concomitants, also, of the epidemic. "In some instances the feet of those who suffered were swollen and painful, simulating rheumatism.

"A fatal termination resulted in the cases of two children, who had very bad throats and mouths, with the extension of the disease, in one case, to the respiratory tract, their deaths being, in the opinion of the medical attendant, due to the poisonous effects of the milk." "Two persons who labored under chronic kidney disease, were respectively attacked with sore throats, and died on the same day; other people in the same houses suffering, also, from the 'epidemic sore throat.'" "A servant girl was attacked on February 4 with sore throat and pain in the limbs, complained on the 8th of great pain in the epigastric region, and dyspnœa. There was a purple red patch on the left cheek, extending to the nose. At 3 P. M. on the 9th she passed into a state of coma, and died at 4 P. M." "Mr. Wood says this was an obscure case, but thinks it possible that it was one of blood poisoning. Being in England in 1886 to investigate this unusual epidemic of sore throat, and wishing, if possible, to learn what relation, if any, it bore to scarlatina, I went to Dover to consult with Dr. M. K. Robinson. He received me very kindly, and said he would go with me to the various homes where the disease had existed, that we might gain the desired information.

The following *facts* were elicited:

1. That members of eight different families, who had previously had scarlet fever, escaped the "throat epidemic," while all the other members contracted the disease, all alike having partaken freely of milk infected with the contagium of "Foot-and Mouth Disease." The number of those who escaped was twenty-three +. I say plus twenty-three, because in the case of one family we were told that the father, mother, and servants escaped, the number of servants not being stated. Allowing the number of servants to be two, the whole number would be twenty-five.

2. That of one hundred and eighty-three persons who had the "throat epidemic," sixteen had had scarlet fever.

3. That four of the sixteen persons who had had scarlet fever, had a *mild form* of the "throat epidemic."

4. That two of the affected individuals had scarlatina *when young*.

5. That *none* of the persons affected with the "throat epidemic" had contracted scarlet fever from natural, accidental exposure, between the time of having the "sore throat" and the date of my visit (1886).

At this point, and in close connection with what has just been stated, let me quote, *in extenso*, the paper recently received from Dr. Robinson, the one alluded to in the first few lines of this article. It is as follow:

"DEAR DR. STICKLER.—I have at last been able to complete the further inquiry which you asked me to make, and beg to furnish you with the information sought for, which you may consider more complete than my previous communication to you upon the subject. The following summary has been compiled from statistics containing all the information procurable, concerning the epidemic of 1884:

Number of cases of foot-and-mouth disease which came under observation during an epidemic of this disease at Dover, England, in 1884.	Number of persons attacked who had previously suffered from scarlet fever.	Number of persons attacked who had *not* previously suffered from scarlet fever.	Number of persons who, having had scarlet fever and imbibed infect'd milk, *escaped* foot-and-mouth disease.	Number of persons who had foot-and-mouth disease in 1884, since exposed to scarlet fever without contracting the disease.
205	23	161	36*	14

"With regard to the prevalence of the disease in Great Britain it does not appear to have been worthy of recognition in our official nomenclature of diseases, and it has escaped notice by the leading authors of our text-books on medicine. When my interest in this disease, as developed in the human subject, was aroused, I had to resort to veterinary practitioners and veterinary works, in order to obtain descriptions of the symptoms and history of the malady. I am not surprised, therefore, that Sir James Paget should write to you, to the effect that he was not aware of the existence of the disease, when it fails to find a place in British nomenclature and teaching. It is now twenty years ago, when Medical Officer of Health for the Borough of Leeds, that a distinct epidemic of this disease came under my notice. It was confined chiefly to children who had partaken of milk from cows suffering from this disease, and the symptoms in the human subject were most characteristic. Since that time *limited* outbreaks have, from time to time come under my observation, which, although clear to my mind as to their nature and origin, were limited in point of number of cases on each occasion.

"Then came the sudden and widespread diffusion of the disease in Dover, which, with considerable labor, I was able to trace so clearly to its source that I felt it my duty to bring the matter before the medical profession and place on record the facts then elicited.

"When the history of this last-mentioned epidemic obtained notoriety from its publication in the daily papers, I had many communications on the subject from persons who had evidently sustained practical experience of the disease, but the nature of which had escaped recognition at the hands of medical practitioners. Thus Captain Reid, of Backsford House, Ashford, says in a letter to me: 'Some few years ago, whilst staying at a fashionable watering place, my children were poisoned from milk, which I ascertained for certain was derived from a cow suffering from foot-and-mouth disease. I at once recognized the disease, because on a previous occasion, five of my household had suffered from drinking the milk of a cow belonging to myself, which was afflicted with the disease.'

"Another gentleman told me that, being thirsty, he went into his cow-shed and drank off a glass of milk just yielded from one of his cows, which he found afterwards was ill at the time, and subsequently pronounced by the veterinary surgeon to be suffering from foot-and-mouth disease. This gentleman was attacked with bad mouth and throat.

"Another gentleman said: 'When my cows suffered from the disease, my man, along with his wife and family, would persist in drinking the milk from the diseased animals, and they were all attacked with the malady.' The Messrs. Crowhursts, veterinary surgeons, wrote me, saying that when attending upon animals suffering from foot-and-mouth disease, the attendants upon such animals had often complained of the same symptoms which were exhibited by the animals in question, etc., etc.

"The disease as it occurs in animals has been variously described as eczema epizootica, aphthous fever, epizootic aphtha, and murrain, and is characterized by fever and a vesicular eruption in the cleft of the hoofs, or in the mouth, with extension into the throat and nostrils. Shivering and a ropy discharge from the nose are often noticed at the onset of the attack. When the vesicles are ruptured, ulcers form, or red spots, bare of epithelium, appear, with the characteristic soreness which ensues.

"The incubation period varies; but animals have been known to suffer twenty-four hours after exposure to infection. Various complications occur, and erysipelas and pyemia have been known to supervene.

"The following characteristics were noticed in the human epidemic which occurred at Dover: Shivering, followed by headache and fever; pains in the limbs; thirst; parched lips, and a vesicular eruption on the throat and mouth. A common accompaniment was enlarged cervical glands; many had enlarged tonsils, in some instances proceeding to suppuration.

"In the *Veterinary Review*, Vol. iv, p. 502, and Vol. v, p. 187, will be found some evidence furnished by Dr. Balfour and Mr. H. Watson, on the transmission of foot-and-mouth disease by milk to man, and in the same periodical (Vol. v, p. 81) Mr. Hislop records some instances of human beings taking the disease by inoculation. Parkes, in his 'Practical Hygiene,' says: 'There has been much discussion whether the milk from cows with the foot-and-mouth disease causes affections of the mouth, etc., in human beings. There are some striking cases which seem sufficient to prove that diseases of the mouth, aphthous ulceration, general redness, diphtheritic-like coating and swollen tongue occur.' In the proceedings of the Royal Society for 1881 a new form of febrile disease is described by Dr. Evart, the propagating agent being milk from a dairy near Aberdeen.

"Gamgee, the eminent veterinary surgeon, says that the disease is communicable to man, as the history of the various outbreaks of disease undoubtedly prove. I have referred in detail to the above-mentioned symptoms as observed by reliable narrators, because I am satisfied that many ill-defined throat affections are due to bovine sources. During epizootic epidemics I have again and again noticed the concomitant prevalence of aphthous affections and diphtheritic-like appearances described often under the heads of follicular stomatitis and follicular tonsillitis.

"Dr. C. Fox described a peculiar epidemic, characterized by inflammation of the tonsils, extending into the pharynx, and sometimes to submaxillary and cervical glands, and accompanied by yellowish patches on the throat.

"This outbreak occurred in October and November, 1875, in a parish that differed from its neighbors in this: that the inhabitants were supplied with water from a stream polluted at various parts of its course by the drainage of farm-yards, the inference being that the specific poison was derived from the infected excretions of cattle.

"That some intimate relationship exists between scarlet fever and diphtheria appears to be extremely probable; my own view being that diphtheria can be produced by the pabulum on which the scarlet fever poison exists, during the interval between its passage from one human subject to another. I have known

* This number includes persons other than families in which the disease broke out, but who obtained the same milk supply.

instances where diphtheria has broken out at isolated spots in the country, when, after diligent search, no exposure to any previous case of diphtheria could be traced; but where I know that scarlet fever had previously occurred, and that those who suffered from diphtheria had been exposed to exhalations from scarlet fever infected excretions.

"Again, it is the custom in many parts of England to cart town refuse and garbage into the country, and there may be witnessed the disgusting spectacle of swine feeding upon the scavenger's motley collection, including, as such heaps do, not only decaying vegetable and organic matter, but rags and poultices from hospitals and sick-rooms.

"Many times has swine fever (which some maintain is allied to scarlet fever) broken out amongst pigs kept as above described, and I have also noticed that, in the same locality, the swine fever has been accompanied by foot-and-mouth disease amongst the cattle; but, what is far more important, human beings that have consumed milk from the infected cattle have suffered from diphtheritic-like affections of the throat. It is a striking fact that, in localities where foot-and-mouth disease has prevailed, there also has there been a large development of diphtheria or its congeners.

"The cases of foot-and-mouth disease officially reported in England increased from 37,000 in 1882 to 461,000 in 1883; and following this enormous increase of the epizootic disease there was a large increase in diphtheria. The number of deaths alone from this disease in England and Wales during the first quarter of 1884 being 1,270, and the death-rate from the malady higher than that recorded in any quarter of the previous fourteen years. The above observations I have not published; but you are at liberty to make any use of them you think proper.

"Believe me, yours faithfully,

"M. K. ROBINSON."

In immediate connection with this letter and the statistical table already given, let me call your attention to the facts concerning an outbreak of foot-and-mouth disease in Bethersden, England, in 1884. They are as follows, in tabulated form, namely:

No. of cases.	Age	Scarlet f'v'r previously.	Scarlet fever since.	Remarks by Dr. M. K. Robinson.
1	8	0	0	
2	10	0	0	Members of same family.
3	18	0	0	
4	6	0	0	
5	8	0	0	Members of same family. Four other members who had previously had scarlet fever escaped epidemic of sore throat.
6	5	0	0	
7	7	1	0	Same family — 7 and 8, mild sore throat, probably modified by previous
8	9	1	0	scarlet fever. (Dr. Robinson)
9	3	0	1	Very slight case of scarlet fever last year.
10	8	0	0	
11	2	0	0	Same family.
12	1	0	0	
13	9	1	0	
14	7	0	0	Same family. No. 13, mild case of scarlet fever. No doctor employed.
15	11	0	0	
16	9	1	0	Same family. No. 16, mild case of scarlet fever.
17	2	0	0	
18	12	0	0	
19	5	0	0	Same family. Three other members of this family who had previously had
20	4	0	0	scarlet fever escaped throat epidemic.
21	2	0	0	Same family. Case 22, mild throat
22	22	1	0	case.
23	6	0	0	
24	7	0	0	
25	7	1	0	
26	8	0	0	
27	6	0	0	No. 28 said to have been mild. No
28	9	1	0	doctor.
29	9	1	0	No. 29, mild throat case.

We learn from this table—

1. That two members of one family who had not previously had scarlet fever developed the foot-and-mouth disease, while four other members who had previously had scarlet fever escaped.

2. That three members of another family who had not previously had scarlet fever contracted foot-and-mouth disease, while the three other members who had had scarlatina escaped.

3. That but one person developed scarlatina after having had foot-and-mouth disease, and that attack was very mild.

4. That persons who, having had scarlatina, contracted foot-and-mouth disease, had the latter affection very mildly.

5. That these individuals developed the foot-and-mouth disease as a result of exposure to manure derived from cattle affected with aphthous fever.

As supplementary evidence in favor of the prophylactic power of foot-and-mouth disease against scarlatina, I will re-state the facts concerning three children whom I inoculated with the virus of foot-and-mouth disease.

CASE I.—M. M——, about eight years of age, had never had scarlet fever. On January 12, 1884, I injected, under the skin of his arm, a small quantity of virus taken from a cow having a mild attack of foot-and-mouth disease. A short time thereafter the cervical glands became enlarged and tender to the touch. There was no marked systemic disturbance, neither was there any sore mouth or throat. All signs of glandular enlargement and tenderness had disappeared in six or seven days. He was then taken to a house in which there was a boy sick with scarlet fever. The disease was in the desquamating stage, and the throat still sore. His parents being poor, the pillow upon which the patient lay had not been exchanged for a clean one since the beginning of the sickness. This pillow was placed upon the face of the boy who had been inoculated, and held there some time. He was then made to inhale the breath of the patient, and afterward to remain some time in the sick-room. The boy did not develop scarlatina after having been thus exposed, neither has he contracted the disease since, although there has been opportunity for infection.

CASE II.—B. P——, aged four years, had never had scarlet fever. On March 6, 1884, I inoculated her in the arm with a small quantity of foot-and-mouth virus. On March 13 her temperature rose to 103° F. Her mouth was sore without showing any vesicles, and she complained of a prickling sensation in her throat. She had slight headache, the appetite was impaired, and she was quite peevish. There was no eruption at any point on the body. By March 20 she was well. She was then taken to a house where I had a patient in the desquamating stage of scarlet fever. The patient was very sick at the time because of complications; indeed, was so ill that I was somewhat doubtful about the issue. The same plan of exposure was adopted as in the first case, except that I could not get the inoculated child quite near enough to the patient to inhale her breath; but the "pillow exposure" and the length of time she remained in the sick-room afforded a good opportunity for infection. She did not subsequently develop scarlet fever.

CASE III.—J. M——, aged about ten years, had never had scarlatina. I inoculated him just as I did the first two. He did not afterward develop any systemic disturbance or local lesion. After a lapse of three years, with opportunity for infection, he tells me he has not had scarlatina.

These cases, taken in connection with others, suggest gratifying results should further inoculations be made.

In one of my note books I find this entry, namely: "Thursday, August 19, 1886, went with Dr. Robinson to Canterbury, England, where we saw the health inspector, who told us that in one family the foot-and-mouth disease attacked *only* those members who had not had scarlet fever. We found four persons suffering from the epidemic sore throat who had had scarlet fever."

Without commenting now upon what has thus far been stated, I will describe, somewhat briefly (quoting Prof. Walley), foot and-mouth disease as it affects animals.

Synonyms.—Murrain, eczema epizootica, distemper, epizootic aphtha, vesicular aphtha, vesicular epizootic, aphthous fever.

Definition.—It is a vesicular eruptive, or exanthematous affection, due to a specific ferment, and having its lesions localized in the skin and mucous membranes.

Characters.—Eczema epizootica is probably indigenous in the bovine tribe only, but there is no direct proof that it may not originate in the ovine species also. It readily attacks sheep, goats, swine, and poultry; it is easily transmitted to the human subject, and it has been described as existing in the horse, the dog, wild fowl, deer, wild boar, etc. Walley says little or nothing is known of the ferment of this disease. Dr. Klein, of London, says the disease is caused by a micrococcus which forms in artificial media, besides dumb-bells (diplococcus), beautiful chains (streptococcus). These differ in length according to the number of micrococci composing them, the short chains being a linear series of four, six, or eight micrococci; the longer ones of more than eight up to thirty and more micrococci. The longer chains are always curved, and even convoluted.

In different outbreaks it localizes itself mainly in the feet, the udder, the mouth, the skin, and mucous membranes, respectively.

One attack does not give immunity from others; and not only may an individual animal suffer several times from it in the course of its life, but even twice or thrice in a season, though in the great majority of cases each successive attack becomes milder in its character. Dr. L. McLean, Government Veterinary Surgeon, says, "In the bovine species one attack of foot-and-mouth disease does not give immunity from the disease; but in the ovine species it does."

The channels by which nature endeavors to eliminate the poison are the salivary and mammary glands, the mucous glands of the bronchial and intestinal mucous membranes, and the skin.

The effects of the poison on the skin are invariably well marked, desquamation of the cuticle being extensive; but while this is a common characteristic of many zymotic diseases, it nevertheless points to the necessity of encouraging the elimination of the poison by this channel.

Period of Incubation is, compared with other zymotic affections, short, viz., from twenty-four hours to three weeks. The average is from two or three to five or six days.

Invasion is, on the whole, rapid and pronounced—the manner of invasion depending upon the amount of poison received into the system, the condition of the host, and the surrounding circumstances.

Duration is variable, and is regulated by the intensity of the attack and the care which is bestowed upon the patient; from ten to twenty-one days may be looked upon as the average period of duration where the disease runs a regular course, and is not succeeded by important sequelæ.

Fatality depends largely upon the character of the outbreak; in some seasons death in any animal is rare, while in others great numbers succumb to the primary effects of the disease.

Propagation.—It is propagated by direct and mediate contagion, as the virus is both fixed and volatile, but it is only diffused through the medium of the atmosphere at comparatively short distances. As the saliva, the nasal, conjunctival and intestinal mucous are highly charged with the virus, it is most readily spread by the conveyance of these secretions to healthy animals, by many direct and indirect means.

Symptoms and Course.—The symptoms must be divided in general, or constitutional, and local.

The premonitory constitutional symptoms are identical with those of other zymotic diseases. These are: Isolation, usually very marked; arched back in cattle; tucked up abdomen; muscular twitchings or shiverings, more or less severe; erection of the hair, the skin being hot and dry; and stiffness of gait, which is most pronounced when the feet—and particularly so if three or the whole—are affected.

Bowels usually a little constipated; urine sometimes scanty, high colored, and laden with solids, especially as the disease advances; at other times it is profuse and limpid. There may or may not be mucous discharge from the eyes and nose, with increased lachrymal secretion from the former. In young animals, exposed to inclement weather, such discharge is very constant, and in the course of a few days, that from the eyes forms a yellow accretion at the inner canthus of the lids and down the sides of the face, a similar accretion being formed, by the nasal discharge, round the edges of the nostrils.

Under exposure, an irritable bronchitic cough is present, by localization of the lesions in the bronchial mucous membrane.

Temperature always elevated to the extent of 2° or 3° F.; the pulse and respiration may not be much disturbed. Appetite indifferent when invasion is rapid, and the fever high, or the stomach and bowels affected; in ordinary cases, a desire for food is evinced, even though the lesions in the mouth are extensive. In ruminants, rumination is performed naturally, unless the mouth is much affected.

In milch animals, interference with the lacteal secretion will be largely regulated by the localization or non-localization of the lesions in the udder.

As the disease advances, the phenomena above enumerated, increase in intensity, and continue to do so until the climax—which may be calculated at from the third to the seventh day—is reached, after which they gradually subside.

In addition, vesicular and pustular eruptions may appear on the skin of different parts of the body; they are most often seen in the pig, and the primary may be succeeded by secondary and even tertiary crops.

Jaundice is a very frequent concomitant.

Desquamation of the cuticle is an invariable accompaniment of convalescence, the skin being covered with abundant bran-like scales of a yellow color; it is also extremely irritable, animals rubbing against prominent objects vigorously.

If the lesions are localized in the gastro-intestinal mucous membranes, colickly pains are induced.

The local lesions are, so far as the skin is concerned, usually seen in parts devoid of hair, or where it is delicate, as the feet, the mouth, the udder, and in

some cases the vagina of the female, and the sheath of the male. In all animals, the earliest pedal sign is lameness—more or less sudden and severe—with uneasy movements of the limbs. In the course of a few hours, subsequently to the advent of the lameness, the vesicular eruptions characteristic of the disease appears. The pedal vesicles are bladder-like elevations, varying in size from a hazel-nut to a walnut. If allowed to remain undisturbed, the vesicles burst in from three to twelve hours, and discharge a limpid, colorless, or pale-straw colored fluid; the jagged edges of the lacerated epidermis become retracted and slightly everted, and form an irregularly-raised white boundary around the margin of the resulting sore. The cutaneous structure, which is exposed by the eruption of the vesicle, is of an intensely scarlet color.

The advent of mouth lesions in cattle, is marked by smacking of the lips, or rather the mouth; by dribbling of the saliva, and by partial or total inability to masticate. The mouth vesicles vary in size and character, according to the part of the buccal membrane in which they are located. The pad vesicles appear as flattened elevations of the epithelium, without areolæ around their bases. On the tongue, the vesicles are much larger than elsewhere. They vary in number from one to five, and are very resistant. They present much the same character as on the pad. Two or three may coalesce and form one very large vesicle.

On the inside of the cheek, the reddened condition of the mucous membrane is more discernible, and the resistance of the vesicles considerably diminished.

On the lower lip, vesication in ordinary cases, is comparatively infrequent. The vesicles when they appear are much smaller. On the skin outside the lips vesicles are rarely seen. More frequently secondary than primary, are small, and succeeded by pustules and scabs.

In the course of a few days, the epithelium will be so far restored as to form a perfect coating over the inflamed tissues. In the cow, vesicles usually appear a few hours after the premonitory signs of the disease, on the body, and around the apex of the teats, but they may be developed in any part of the udder. At first they are discrete, but frequently become confluent. They vary in size from a three-penny piece upwards. The period of vesication will vary from one to two, to about thirty-six hours, depending upon amount of friction and pressure to which they are exposed.

The exposed epidermis, after rupture of the vesicles, is intensely hyperæmic, but if the parts are undisturbed, it quickly becomes covered by inspissated pus, coagulated lymph, and epidermic cells; the hair, when present, assisting in forming a coherent brown-colored scab which has usually irregular edges, and varies in thickness.

The substance of the tongue is usually much more flaccid than normal, and if the papillæ are carefully examined, it will be found that in the earlier stages of vasication, they are much congested, subsequently becoming atrophied and shriveled. It sometimes happens that when the tongue is seized, to explore the mouth, large patches of epidermis come away in the hand, as if the tongue had been boiled. This occurs in the aphthous stage when the vesicles have ruptured, and, the epidermis being removed, erosions appear. (Fleming.)

Thus far I have simply stated facts, such facts as should receive the most earnest attention of the profession. I make this statement without apology, because I am satisfied that when a disease failed to attack every member of eight different families who had previously had scarlet fever, and attacked every other member who had not had scarlet fever, there was some good reason for it; that reason apparently being—not coincidence—but the protective influence of one disease against the other.

Further, not only was this true of eight families in Dover, England, but of two families in Bethersden, England. Again, there were other individuals, who, having had scarlatina, escaped the throat epidemic, and, as already stated, when the throat epidemic occurred in those who had had scarlatina, it was mild in character, as far as could be learned; and, in the one instance in which scarlatina occurred after the epidemic sore throat, it was a very mild attack. Here, again, there must be some reason for the mildness of one disease when appearing after the other in the same individual.

Thomas, in his article on scarlatina, says: "Soon, perhaps already on the second or third day, the entire coating of the tongue, with the superficial layers, exfoliates either at once, or in successive sections, in a manner found in no other disease." Now, here is a disease (foot-and mouth disease), in which this very thing does occur, as already stated on the authority of Fleming. In both, the papillæ of the tongue are swollen and prominent; in both, there is abundant desquamation of the cuticle. Sometimes, in scarlatina, ulcers occur upon the tongue, cheeks, and gums, as in foot-and-mouth disease. Foot-and-mouth disease frequently attacks cattle more than once; sheep, on the other hand, do not so commonly have a second attack. In the case of scarlatina, Thomas (Ziemsen, Vol. 2, p. 186), says: "As a general fact, it cannot be disputed that scarlatina belongs to that class of diseases which occur but once; nevertheless, exceptions appear to be of comparatively frequent occurrence." He then says, he collected, in the literature to which he had access, about two hundred cases of a second infection, beside a few reports of a third and fourth infection in the same individual. Murchison observed relapses of scarlatina in two sisters. Trojanowsky says, "in two of his cases of secondary scarlatina, both parents had also the disease twice, and in a third case the father had been affected twice." Richardson states that he has experienced scarlatina in his own person three times. Sir Robert Gillespie tells of a young lady who had scarlatina three times, the diagnosis of which was unequivocal (Ziemsen, Vol. 2, p. 191). Henrici, during the epidemic of scarlatina in Kiel, from 1797 to 1798, attended a woman who was then undergoing her seventeenth attack of scarlatina with all its symptoms (Ziemsen, Vol. 2, p. 192). The latter statement may be exaggerated. Dr. Edward J. Ill, of Newark, N. J., writes me as follows concerning some of his own patients: "One of my patients, six years old, had an attack of scarlatina in 1881; in 1883, she had another attack; in January, 1887, a third attack; in 1888, she had a fourth attack. Desquamation followed in each instance." Another case: "J. G., aged twelve years, had scarlatina in 1888; had a prior attack in 1881."

The tendency to suppuration of the tonsils, and the continued enlargement of the cervical glands in persons who had the foot-and mouth disease, suggested a resemblance of the two diseases (scarlatina and foot-and-mouth disease).

A consideration of the above, inclines one to the opinion that the two diseases under consideration may be more closely allied to one another than has heretofore been supposed to be true, and that it is probable

that an individual who has had one disease, either will not contract the other on exposure, or will have it in a very modified form, if he contract it. Dr. Robinson, in a personal letter to me, says: "As to the prophylactic power of one disease against the other, my own view is, that if persons who have had one disease, and are exposed to the other, suffer from the alternate one, they do so in a mild form. If there is some intimate relation between the two maladies, it is fair, I think, to assume that persons who have suffered from one form are less susceptible to the other. I do not think I mentioned in my former communications, as evidence of the relation of the two diseases, that in the County of Norfolk, during a period of great prevalence of foot-and-mouth disease amongst cattle, in 1883, there was a great increase of scarlet fever, and especially a scarlatinal sort of sore throat. This fact was stated in the House of Commons during a discussion of the Contagious Diseases (Animals) Bill, on March 18, 1884, and reported in the daily papers the following day." Professor Law said, in discussing my former paper: "Epizootic foot-and-mouth disease had at times attacked nearly all the cattle and the people of Great Britain, and, considering the fact that the disease was so prevalent, there should be less scarlet fever in Great Britain than in America, where the foot-and-mouth disease is comparatively unknown."

Sir James Paget, in a letter to me upon this point, says: "I have not seen or heard of foot-and mouth disease communicated to persons in this country. I have asked some of those likely to have known of such cases if they had occurred, but I have learned nothing from them."

Professor Thomas Walley, of the Royal Dick'd Veterinary College, Edinburgh, Scotland, says in a communication to me: "Very few people contract eczema" (foot-and-mouth disease). Professor E. Klein, in speaking upon the same matter, says: "My dear Sir.—In answer to your letter of October 29, 1889, as to whether many of the people of Great Britain have had foot-and-mouth disease, I must say that during the nineteen years that I have resided in this country, I have heard of some outbreaks of foot-and-mouth disease amongst the people in various localities, but they were always localized and did not involve many cases. I must say that I have never been more surprised, than when you told me in your letter that Professor Law offered the remark that many persons in England have had foot-and-mouth disease. As a matter of fact, the contrary is the case. During the last four or five years, I have not heard of any appreciable amount of foot-and-mouth disease; in fact, I do not think there has been any epidemic of it. I have made inquiries of several friends in the country, and I hear from them that many practitioners have never seen a case in the human, in fact, some, in practice during the last four years, did not know it to have occurred in a single instance in their districts. Only a few weeks back I had a class in bacteriology, at which were twelve gentlemen, in practice as health-officers in various parts of England. Every one of them to whom I put your question, laughed at the idea that foot-and-mouth disease is alleged to be a common disease in man in this country." These gentlemen, evidently, do not agree with Professor Law upon the above point. Even if we assume that the disease is more common than it is supposed to be, such facts as are set forth in this paper concerning it, in its relation to scarlatina, have never been noticed or commented upon, and, to my mind, are not affected by the statement that scarlatina is very prevalent in Great Britain. Dr. J. Lewis Smith said, in discussing my former paper: "Since the time of Jenner, the hope has been awakened that some of the other fatal infectious diseases, and especially scarlet fever, might be prevented, as small-pox has been, by the inoculation of a milder and modified disease derived from the lower animals." Now let me ask my professional brethren, in a spirit of perfect candor and honest inquiry, if, in the evidence furnished by the epidemics in England, the facts concerning which are herein quoted. we have not a fairly secure basis upon which to build the hope that scarlatina may be either prevented or modified, by introducing into the human system, properly prepared and attenuated foot-and-mouth disease virus. Let me also ask if enough cases have not been quoted; a sufficient number of experiments performed; and the ultimate results of sufficient importance, to warrant a more extended trial being made of this proposed method of preventing the development of, or modifying one of the most fatal and dreaded diseases? No theoretical objection, however adroit and well planned, can settle the question before us; further actual experience with the diseases, in their clinical and apparently prophylactic relation to each other, must be had, before any one can positively deny, or prove to be true, that which seems to be a fact, namely, that scarlatina and foot-and-mouth disease are mutually protective.

Suppose some drug had been administered to certain members of eight families in Dover, England, prior to the appearance of the "throat epidemic," and that when the families were exposed to the contagium of the epidemic diseases, only those who had taken the drug escaped, while every other member contracted the disease. Do you not think that drug would have a new interest, and be given a fair trial, in order to determine, beyond disqute, whether it would, in the majority of cases, exercise this preventive influence? Now, why not, instead of saying: how can this be true? or this cannot possibly be realized—give the proposed method a fair, honest trial, just as you would give the drug a fair trial, or just as Jenner gave his method a trial, and then be guided in the future by the results. Suppose a certain number of children, in a children's hospital for the treatment of contagious diseases, were inoculated with a modified virus of foot-and-mouth disease, and after recovery from the effect of such treatment, should be put into a ward with scarlatina patients, and allowed to remain sufficiently long to be thoroughly exposed to the contagium of the disease, would not that be a fair way to settle the question? What I wish, is simply to determine positively, and as soon as possible, whether the escape from the "throat epidemic" of certain individuals in the two epidemics in England, and of the three children from scarlatina whom I inoculated with the virus of foot and-mouth disease, be due to the protective influence of the one disease against the other, as appears to be the case. If we learn that we may thus prevent the development of a disease so common, oft-times so fatal, and so frequently followed by distressing sequelæ, will we not confer a blessing upon those who are susceptible to its contagium? If, on the other hand, we discover that we cannot, in the majority of instances, confer this immunity, we shall at least have made a commendable effort to realize that, which a large number of clinical facts seemed to indicate as possible of accomplishment.

THE alleged case of cholera in London was undoubtedly one of cholera morbus.

RHEUMATISM AND ITS TREATMENT BY THE TURKISH BATH.[1]

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AT what time the disease called rheumatism first made its appearance is not known. The name was first applied in 1642, in a treatise on the subject by one of the most celebrated physicians of his time, M. Guillaume de Baillou, who was an author of several medical works of great merit.

No disease has proved more perplexing. Its uncertain course at times seems to baffle the physician at every point. Volumes have been written concerning its character, and other volumes still have been devoted to the various systems of treatment, which, from time to time have held the favor of the medical world. Nor is the subject exhausted. While much is unsatisfactory, and many new facts are continually discovered, opportunity yet remains for the investigator to discover more. Every new thought advances the welfare of mankind. It is the purpose of this paper to suggest some conclusions on the treatment of this disease which a somewhat extensive study, together with a practice of nearly thirty year's duration, have developed.

Rheumatism exists in three forms: the acute, the subacute, and the chronic. The prominent symptoms are well known. One most characteristic of acute rheumatism is inflammation, attended with intense pain in and around the joints, and with marked febrile and nervous conditions that indicate a disturbance of the nerve centers. Another noted symptom is the presence in the blood of an excess of lactic acid, which has a decidedly stimulant action on the cutaneous surface. Subacute rheumatism is a milder form of the same disease. Chronic rheumatism is a name which is loosely applied to many ailments not really of rheumatic origin. Properly speaking it is but a milder form of the subacute variety.

The pathology of rheumatism is acknowledged to be obscure, and consequently there is a great diversity of opinion regarding its essential nature. These different conditions are the expressions of but one morbid process with varying forms of intensity. At one time rheumatism was regarded as a general or an infectious disease; at another, as a fever; and again, merely as a peculiar inflammation of the joints and other structures. Of theories now in vogue, perhaps the most prominent one is that lactic acid accumulates in the body, and that the symptoms are directly traceable to the action of this poison upon the system. There is the nervous theory, the germ theory, and also the malarial theory.

Rheumatism is a constitutional disease, evolved in the system, the culmination of excretory products. The freedom from rheumatic symptoms immediately following a single attack, strongly indicates the expulsion of noxious matter from the system. As man is but the product of his environments, no valid claim can be made that any one cause is sufficient to account for all the disorder that this disease produces. It would be nearer the truth to call rheumatism the sum of all the transgressions of its victim. Lactic acid is a normal product of tissue metamorphosis. The morbid action which constitutes rheumatism gives rise to an excess of the acid, and this excess and the rheumatic symptoms both result from the same cause.

[1] Read before the American Medical Association, at Nashville, Tenn., May 30, 1890, in the Section of the Practice of Medicine.

It is reasonable to suppose that the special poison of rheumatism may find its principal obstruction while circulating through the tense fibrous tissue of the joints, and thus by pressure on the nerves of those parts, produce the pain characteristic of the disease. Retained excreta exercise two distinct actions, one, a stimulant action on the organ by which they are naturally eliminated, the other, a disturbing action on the tissues which supply the materials of their formation, and there is always danger from every arrest of the nutritive changes of the system.

Of the predisposing causes of rheumatism, one of the most important is that of inheritance, which can be traced in 27 per cent. of all cases. Some bring it on by overwork or exposure in damp or unsanitary surroundings. All nerve exhaustion tends to lower the vital reaction of the individual, so that a slight occasion often culminates in this disease; but in most cases the attack is induced by error or excess of alimentation. Indigestion is a frequent cause of rheumatism in the aged, and there is no doubt but that tobacco and alcohol are responsible for a large amount of this, as well as other disease. The action of tobacco on the nervous system, which is mistakenly supposed to be a tonic, is in reality only a toxic effect, and alcohol, by preventing the elimination of waste material, helps to aggravate every weakness and increase every predisposition to disease. These alcoholic drinks that contain lime salts are particularly injurious to rheumatics.

Rheumatic fever is simply a crisis, in other words a means of expelling morbid material from the system, and instead of trying to suppress it, we should aid nature in all her efforts to eliminate this poison. Disease, in whatever form it may appear, is but an effort of nature to free itself from some offending material in the system.

There is probably no disease to which so many different modes of treatment have been applied. Until about the middle of this century, bleeding was considered the sheet anchor in the treatment of acute rheumatism. Facts, however, tended to show that patients recovered more rapidly and satisfactorily when they were not bled, and the practice gradually was abandoned, for rhumatism as well as other diseases. Purgatives, diaphoretics, sedatives, and many other remedies have had their day. Then came the lactic acid theory, which naturally led to the alkaline treatment. Lemon juice also found favor for a time, with results quite as good as those from the alkalies. Of all these remedies, not one can be confidently relied upon. Indeed, it has been stated by good authority, that we have no remedy for acute rheumatism. Even the salycilates, salol, colchicum, iodide of potassium, etc., have proved a disappointment in many cases.

So unsatisfactory did all known remedies prove, that about thirty years ago some physicians gave up all treatment; simply kept the patient warm in bed, ordered a light, simple diet, and administered a placebo. Dr. Flint published in 1863 an account of thirteen cases treated on this plan with good results. Two years later Dr. Sutton, of Guy's Hospital, gave an equally good report of forty-one cases which were treated medicinally with mint water only. This expectant treatment was adopted by many, with results as satisfactory as those from more active measures.

For the treatment of a constitutional disease we must needs have a constitutional remedy, and this is furnished us in the modern Turkish bath. Having devoted over thirty years to the study of preventive

medicine, and having during that time been in an institution in daily contact with rheumatism, our opportunities have been exceptional. Of over three thousand cases of this disease under treatment, at least ninety-five per cent. have been either entirely relieved or greatly helped. Some who were treated over twenty years ago have stated that they have not had a twinge of rheumatism since. Under this treatment swollen joints have resumed their normal size, acute pains have been eradicated, and the patient restored to general good health. Men are to-day actively engaged in business who were brought to us by their physicians, who acknowledged that ordinary medication had failed to reach their case. The records of every establishment using this remedy will bear out the statement that remarkably few have persevered in its use without experiencing permanent relief.

It therefore needs no apology for bringing to the notice of the profession a remedy that has been almost invariably successful—and that is heat, the simplest, the easiest, and the most effective of remedial agencies. It is an important fact that we have perfect command over the blood circulation by subjecting the skin organism to the influence of artificial heat; and on this the whole sanative virtues of the bath depend.

This opens a new field, and offers results that are well worth investigation and trial. Every physician should know what a Turkish bath is, and acquaint himself with its practical workings. It is no new fashioned remedy of to-day. Its history dates back to tradition. We read of it in the early records of the Romans. In the Augustan period the bath flourished in its greatest magnificence. All the resources of science and art were made contributory to its completeness. When Rome overran Gaul and Britain, the bath attended her progress, and ruins of the splendid structures then erected are now to be seen in many places, notably at the Hotel Cluny in Paris and at the city of Bath in England. The success of the Roman armies was due in a large measure to the bath, which was to them the hospital and pharmacopœia. Traces of this bath are also found in ancient Mexico, in Ireland, and in many other countries.

For its modern revival we are indebted to David Urquhart, of honorable memory. He was an enthusiastic Englishman who had represented his country in Turkey, and there became enamored of the bath as an institution. One chapter of a book which he wrote, entitled "The Pillars of Hercules," and which was published just forty years ago, was devoted to the Turkish bath, and first called attention to the subject.

The Turkish bath of to-day is a most desirable resort, where all modern improvements have been brought into subjection for the comfort and enjoyment of the bather. Treatment by the Turkish bath immediately becomes a luxurious method of getting well. It is a sweating process, and heat is its vital principle. This can be used as high as 200° Fahr. and over in cases of emergency. It would be impossible for bacteria or disease germs of any kind to live in such a temperature, and it can be readily seen that with the circulation constantly coming under the influence of such an action, it would soon be purified and vivified. By this bath we can destroy personal contagion. This has been demonstrated in many cases. A few moments in the hot room brings a positive degree of comfort to the rheumatic patient, and soon so much relief is given by the heat that he will almost imagine that the disease has left him. Every pore of the skin is made an open sluiceway for the discharge of a large amount of perspiration, disease-germs included. The good effect of manipulation, which immediately follows, is intensified by this heated condition of the body. Certainly nothing can purify the internal and the external man more than this process, nor can any agency better assist the vital energies in the struggle against disease. The circulation is invited to do its most perfect work, and as the improved action of any organ only comes through a quickened circulation of the blood in that part, so we find that every function influenced by this natural stimulus quickly takes on a normal condition. When the body is thoroughly heated and the circulation most active, the reaction from a cold application is most agreeable and salutary. Inflammation necessarily implies a want of proper circulation. Some cause has plugged up the finer terminal blood-vessels of the part inflamed. A condition of stasis has been brought about. By applying heat we relax the tissues, so that the circulation can pass on and the offending material be thrown out through the usual excretory channels. Whether or not this theory be true, the fact remains that thousands have experienced entire relief by this process.

In ordinary treatment it is observed that while the rheumatic patient may complain of the unpleasant effect of the perspirations, he never complains of their weakening effect, such as is observed in hectic fever. On the contrary, he may describe them as bringing great relief to the bodily condition. The perspiration and increased circulation brought about by the heat are not at all exhausting or debilitating, for there is little or no drain on the vitality. There is an essential difference in this respect from the perspiration brought about by exercise.

That this bath is weakening, or in any manner debilitating, is thoroughly controverted by many facts, among others that the shampooers, who work in the heat several hours daily, never loose a day from its effects. On the contrary, they are examples of good health and vigor. Invalids, weakened by disease, and not able to sit up all day, have been subjected to this treatment, once and even twice daily, for months at a time, the result being a constant improvement in health, strength, and flesh. In fact, the more desperate the case, the more active and persistent the application of the bath treatment. Many trades find it necessary for their workmen to labor in a temperature considerable above 100 degrees Fahr., and the men are far from being injured thereby. Prof. Carpenter, in Human Physiology, endorses this same idea, and Chabert, the Fire King, was in the habit of entering an oven, the temperature of which was from 400 to 600 degrees Fahr. In fact, the whole weight of testimony disproves the notion that this bath is in any way enervating.

For those disposed to rheumatism, a careful and well selected dietary should be chosen. Sufficient only should be eaten, and that thoroughly masticated, the food being plain and simple. By a thorough regime of this kind, and a systematic course of treatment by the Turkish bath all may be freed from any liability to this most uncomfortable disease. Much has been and can be done by the practitioner in the way of expectant treatment, or the let-alone policy, by preventing the patient from injurious dosing or troublesome friends, and mainly by making him comfortable and simply assisting nature to throw off the disease as fast as possible. The cold bath has a wonderful tonic effect, but the greatest relief is

brought about by the sweating bath, followed by the cold dash. The change from hot to cold has an invigorating effect upon the nervous system, and this is in line with the Turkish bath treatment. A little ingenuity will often enable the physician to improvise what will answer the purpose for the time being, in the patient's own home. Wet compresses to the inflamed joints sometimes give great comfort. It is plainly impossible, however, in private practice to have all the facilities to handle this disease as comfortably, or to relieve as quickly, as in an institution where all these arrangements are made a specialty. Therefore, when it is practicable, it is advisable to at once remove the patient to an institution where the Turkish bath and its accessories can be secured. The advantages of medical care, proper diet, and the regulation of treatment to the conditions of the patient, by one who has experience in the matter, are desirable.

Out of the multitude of rheumatic patients that have come under our care, it would be unnecessary and not to the purpose to give the history of even a tithe of them. We have, however, selected six typical cases, simply to illustrate the treatment.

CASE 76.—H. W. W., aged forty one, was brought to the institution January 29, 1867, helpless from acute rheumatism, having been under regular treatment over six weeks. He was unable to move a joint in his body without much suffering, and was obliged to have an attendant sit up to help him turn over during the night. He was given one treatment daily, and for one week was carried to and from his room to the bath. After this time he could walk unaided, and he continued to progress till February 25, when he returned to his business, gradually taking on his full duties. He had then received but twenty treatments. He has religiously continued the use of the Turkish bath once every week since, and to this day, May 20, 1890, he has had no return of rheumatism.

CASE 84.—T. B., Jr., aged thirty-five, came to the institution, April 25, 1867, suffering from rheumatism partly developed. After two treatments, the rheumatism was so acute that he was unable to move without great pain, attended with high fever. After six days, during which he took two treatments a day, he was able to return to business, and has not been troubled with rheumatism since.

CASE 251.—C. R., aged twenty, a young German, was brought to the institution suffering with acute rheumatism, unable to walk or help himself. He was given two treatments a day, and for two days he was apparently no better; thought himself that he was worse; but in one week he was able to go up and down stairs without help, and in three weeks he left for home without an ache or pain.

CASE 2,248.—H. L. R., aged thirty-five. Case of rheumatism in right shoulder, reported that after the first treatment he had the best sleep of any time during the previous fortnight, and with daily treatment improvement continued to a quick recovery.

CASE 2,806.—W. H., aged twenty-one. A severe case of chronic rheumatism which had been under regular treatment for several months. Brought to the institution by his physician. He was anemic, and much emaciated, weighing but one hundred pounds, pulse 120, temperature 101° Fahr. Only able to take a few steps, with much suffering and pain, and that with the aid of a stout cane. There was enlargement of both knees and ankle joints, and he synovial membranes distended by effusion. After hree months he was restored to health, having taken two treatments daily, and gaining in that time seventeen pounds in weight.

CASE 3,375.—Mrs. J. F. Y., aged forty, was brought to the institution, helpless from a severe attack of acute rheumatism. Any motion of the limbs caused intense pain. After one week of daily treatment she was able to go to and from her room unaided, and improvement continued till at the end of two months she was in better health than she had been in for years before.

The one thing most prominent in the treatment of rheumatism by the Turkish bath is the fact that it works in consonance with every physiological law, and that it tends only to place the system in harmony with itself. When we secure a harmonious interchange and natural action of every function, we have the highest condition of health that the individual is capable of attaining. Inasmuch as rheumatism is all-pervasive and all prevalent, and the Turkish bath is its most perfect antidote, the more we spread the knowledge of its good work, and help to popularize and promote its general adoption, the more we help on the better time coming, by adding to the length of days of man.

Society Notes.

ALLEGHENY COUNTY MEDICAL SOCIETY.

Special Meeting, August 19, 1890.

W. S. FOSTER, M.D., President in the Chair.

EXHIBITION OF SOME URETHRAL INSTRUMENTS.

DR. STEWART: The first instrument is the urethragraph. A year ago, last July, I exhibited my first urethragraph. I have made a number of changes. This instrument is for the purpose of recording a diagram of the urethra, giving the exact circumference at every point. The next instrument I will show you resembles the first one. It is almost the same in principle. It is for a different purpose; it is a combined urethrameter and urethratome, so made that it will either measure the urethra or cut a stricture. This instrument is inserted into the urethra as far as you may desire, usually to the bulbous portion. If you desire to cut a stricture, you first ascertain the size of the healthy portion of the urethra, the part you do not wish to cut, then permit the blades to open to the size you desire to cut. Having done this, fasten the screw on the upper surface and withdraw the instrument. The third instrument is the urethrascope, the fourth an urethral syringe.

DR. THOMAS: I have had no experience with the doctor's instruments. I did have a little experience in the doctor's presence with his first urethragraph. At the time it was not perfected, so that my experience will not serve in my remarks at present. The principle of the instrument is doubtless correct. I have been using the urethrameter of Prof. Otis, which I have considered the best in the market. The difficulty I found was this: that you had to cover the instrument with a gum tube, the gum tube always giving more or less resistance. After passing the urethrameter down as far as it would go to the bulbous portion, and then opening its arms to the full caliber of the urethra, then in withdrawing it when you would come to a stricture, of course the instrument would cease. Then, in order to pass through the stricture, you had to reduce the caliber until it would cut through the stricture, but in bringing it

through the stricture you could not tell where the stricture ended. You might pull your instrument anterior to the stricture. Now, that is the trouble with the Otis urethrameter. In the doctor's urethrameter, if the spring has the proper sensibility to come and go with the inequalities of the urethra, then it is a typical instrument. But the question is to me whether you can get a spring sufficiently graduated to come and go as you withdraw the instrument.

DR. STEWART: As Dr. Thomas has suggested, the spring in the instrument we used together was weak; this has been remedied.

DR. WERDER reported five laparotomies.

REPORT OF FIVE LAPAROTOMIES.

CASE I. Intra ligamentous cyst. Aged twenty-two years; epileptic; typhoid fever in October last, followed by bad health. Noticed a tumor growing since, reaching from one to one and one-half inches above the umbilicus down into the vagina, bulging out Douglas' *cul de sac* and pushing down the anterior wall of the rectum; in fact, almost completely filling out the pelvic cavity. The tumor was immovable, fluctuating, and distinctly pulsating both over the abdomen and in the vagina, suggesting the possibility of an aneurism. Exploratory laparotomy, March 29, exposed an intra-ligamentous cyst, which had to be peeled out of its capsule. It was a tedious and difficult task. Drainage. Patient made an excellent recovery, without rise of temperature and notable increase of pulse rate. Had an epileptic attack immediately after operation, then none for a week, though previous to operation she had a number of them every day. After first week they returned at intervals of several days.

CASE II. Pyosalpinx. Miss M. D., twenty-six years of age, had poor health for several years; about a year ago, she was obliged to go to bed, when an abscess ruptured into her rectum, which continued to discharge for several months. After the discharge had ceased, her health improved and she gained flesh, but six weeks later she experienced great pain in her right side, and when she entered the Mercy Hospital another abscess had ruptured into the vagina. She was extremely emaciated and anæmic. Laparotomy performed April 6. The anæsthetic used was the "mixture." Immediately after opening the peritoneal cavity she became asphyxiated. Respiration and pulse were arrested for fully five minutes; artificial respiration was performed, head and chest lowered, and hypodermics of whisky were administered. Probably ten to fifteen minutes passed until the respiration and pulse became normal and the operation could be continued. On introducing my hand into the pelvis, I found one large mass from which neither uterus, ovaries or tubes could be distinguished. After a great deal of trouble, I succeeded in freeing the right tube and ovary from their adhesions; both contained pus-cavities. The left tube was also removed with the greatest difficulty; its ovary, however, could not be found. A drainage tube was inserted. Twenty-six hours after the operation, a fecal odor was detected in the discharge from the drainage tube. The following day she commenced to discharge fecal matter in large quantities, and from now on most of her feces passed through the tube and on the sides of it, continuing to do so for a week. The wound was kept clean by enemata, which were immediately returned through the fistulous opening. During this time her appetite was poor, and vomiting very frequent, so that she became exceedingly weak. The fistula gradually closed up, so that at the time of her discharge from the hospital, there was only (sometimes at intervals of several days) a slight discharge of flatus. The occurrence of this fecal fistula can only be explained by the fact that the left tube, distended with pus, had become adherent to the rectum and discharged its contents through the latter. In separating this tube from its old adhesions to the rectum, the old rectal fistula, of necessity, was reopened, and, as a consequence, by virtue of the life-saving drainage tube, the fecal matter found its way through the external wound.

CASE III. Pyosalpynx. Mrs. A., three years married, aged thirty years, had one child at eight months, and was never in good health since. Had three attacks of pelvic peritonitis since; with the last one she was brought into Mercy Hospital. A very tender mass could be felt on both sides of her uterus, which was diagnosed as a double pyosalpynx. Laparotomy, April 29. Tubes and ovaries on both sides very firmly bound down to pelvic floor and adherent to loops of intestines. They were brought up with considerable difficulty and tied off. Ovaries on both sides were firmly attached to their corresponding tubes, each ovary and tube forming one abscess-sac. Drainage. Patient rallied badly from the operation, and vomited incessantly. She had taken ether very badly, a very large quantity being needed to keep her relaxed. The incessant vomiting was, therefore, attributed to the ether. It kept up for forty-eight hours; for thirty hours her pulse was about 160 and very feeble; had Cheyne-Stokes respiration, and an ashy color about her face. She was fed and stimulated freely by rectum, and forty-eight hours after operation she was much improved, her convalescence being then uninterrupted by elevation of temperature and with a good pulse; appetite was good, and she was sitting up in bed, when, on the evening of the twelfth day, a sudden change came over her; she complained of pain about the chest and of loss of appetite. Had shown symptoms of hysteria a day or two previous to this. I examined her carefully; her pulse was 100; temperature perfectly normal; abdomen flat without the slightest tenderness. She rested well during the early part of the night, but towards morning she became very restless, and died suddenly at 6 A.M. on the thirteenth day after the operation. A *post-mortem* examination could not be obtained. Her death was entirely unexpected and its cause very obscure, though I have reasons to suspect pulmonary embolism.

CASE IV. Solid tumor of right ovary and ascites. Mrs. S., aged forty-five, no children, consulted me about an abdominal tumor, situated on the right side of uterus, hard, irregular, freely movable, and reaching midway between the anterior superior spinous process of the ilium and the umbilicus. Lately she had suffered so much pain that she had to be kept under the influence of opiates constantly. The diagnosis was either solid tumor of right ovary or sub-peritoneal fibroid of uterus with long pedicle. Laparotomy, May 6. On opening abdomen a considerable quantity of ascitic fluid escaped. The operation was extremely simple, as there were no adhesions whatsoever. Patient made an uninterrupted recovery, the temperature never being above normal. The tumor, of the size of a large cocoa-nut, had become partly cystic and appears to be a fibroid of the right ovary.

CASE V. Abscess of left ovary. Miss Annie C., aged twenty-four years, had been in bad health for over a year. I was called to see her about a year ago, and found a large mass to the left of her uterus, not very tender to the touch, and fluctuating. She was greatly reduced in flesh and very weak. Under

treatment her general condition improved, but her local trouble remained the same, though local treatment was conscientiously employed for four months. I then advised laparotomy following my diagnosis of left pyosalpynx, but the operation was refused. She then placed herself under the care of another physician. Two or three months later, while going to her physician's office, on getting off the street car an abscess ruptured through her vagina, and this was followed by a severe attack of pelvic peritonitis. At this time I was again called in, and found the mass on her left side considerably larger and exceedingly tender. She was now very anxious to have the operation performed. Laparotomy, June 16. Removed a large ovarian abscess containing about a pint of pus. The sac was adherent to the omentum, intestines, anterior surface of bladder, and had to be peeled out; on doing this, the tube, firmly attached to it and to the pelvic floor, was broken off; the remaining portion was then brought up with great difficulty. The ovary was one large abscess-cavity, and the tube also contained pus. The right tube and ovary were, contrary to the usual rule, not removed, as the patient's condition was such as to make it dangerous to perform a second operation on her, especially as they seemed perfectly healthy. In breaking up the adhesions around the abscess-sac I accidentally ruptured it, and the pus poured freely into the abdominal cavity. This was thoroughly and repeatedly washed out with hot water, and a drainage tube introduced. Her recovery was uninterrupted; the temperature and pulse remaining perfectly normal, except on the day after the operation, when the temperature rose to 100. She is now in perfect health and has gained much in flesh.

DR. MACFARLANE:—It is gratifying to see so many patients relieved of tumors who do well. I do not say that it occurs in the hands of all operators, but very frequently the patient is left in a condition nearly as bad as that in which she was prior to the operation, the only effect being to prolong life for a time.

DR. WERDER: I will simply state that it is very unfortunate when the patient is left in the condition spoken of by Dr. MacFarlane. It is very important in performing a laparotomy not to make your abdominal incision larger than necessary. A small incision only is needed, not more than three inches. Now, if this is united very carefully, and the stitches put in at proper intervals, I think hernias will not occur very often, though they cannot always be prevented. In regard to fistulas, those are things that will often occur from septic ligatures. If you have not your ligatures absolutely aseptic, it is very likely that a fistula will follow, but with perfectly aseptic material, it should be a very rare occurrence to have a fistula.

CASE OF TYPHOID FEVER.

DR. KEARNS: A boy twelve years old, in the third week, ceased to speak even in monosyllables, and this condition continued for about ten days. During this time there was no apparent impairment of intellect. Sitting at the bedside of the patient and telling him to put out his tongue, he did it instantly. Telling him to look toward me that I might examine his eyes, he did it instantly. The pupils of the eyes were markedly dilated. Then, at the expiration of these ten days, the case assumed the very opposite condition, and became loquacious; he would take up any conversation which occurred in the room and follow it up repeatedly. This condition continued day and night, with some short intervals of rest for ten days, when it gradually stopped. The pulse was accelerated during this period of excitation. It was at a normal during the period of quietude. All this time the stomach had been in good condition. Now here are two extremes. What condition of the brain and nervous system is involved in these conditions of two extremes in the same patient and the same disease? This cerebral excitation was very difficult to control. The simple remedy, which appeared to have the desired effect, was calomel. I administered a gr. ¼ of calomel every two hours, then, when the bowels began to run off, in smaller doses. To me this was a very interesting case, and I ascribe the nervous symptoms to a complicating meningitis.

DR. THOMAS: During the month of April, I saw a patient with typhoid fever. The boy was thirteen years old. He had been sick about a week. The fever ran an ordinary course. About the twenty-first day there was defervescence, and I presumed the case was going the convalescence. I visited the boy as long as I remained in the city, and in the meantime he would not speak a word until the day before I went away, I got him to say one word. I did not feel uneasy about him, his temperature not being above normal. He went into the hands of Dr. McNeil. On my return, I found the boy all right, and was told that in speaking to his grandmother, in whose care he was, upon his beginning to talk again, the first word he said was cracker. He said, "Cracker, cracker, cracker," for three or four minutes; then he ceased calling for crackers. I looked upon it as caused by anæmia of the brain.

DR. STEWART: I remember a case where a man lost the power of the right arm. The loss was progressive, and then he had convulsions. The convulsions were in the arm affected. Subsequently they became general and he would become unconscious. The convulsions became very frequent, several times a day. An operation was performed under the supposition of lesion in that area. The man had had syphilis. Iodide of potassium had no effect on the case. The brain was uncovered and only a localized meningitis was found. Incisions were made into the brain and nothing was found. The man ultimately recovered the perfect use of his arm and had no more convulsions.

DR. MCKENNAN: I find that it is not at all uncommon to have peculiar mental states following typhoid fever—mental weakness, and also very frequently mental exhilaration. I have seen many cases of insanity which have been traced to typhoid fever. I have never seen a case of meningitis in a child with typhoid fever. The whole weight of authority goes toward the supposition that the lesion is purely of a functional character, and that there is rarely any structural lesion, although some authorities state the possibility that there may be embolism, which could only involve one artery.

DR. LANGE: No matter what cerebral symptoms we may have in typhoid fever, there is no justification for the assumption of meningitis. No matter how violent or how peculiar are the cerebral symptoms, the assumption of meningitis is not correct, is not justified. I do not know that meningitis and typhoid fever are incompatible; but I mean to say that *post-mortem* examinations in cases of typhoid fever which presented most violent and most strange ataxic symptoms have so invariably proven the absence of meningitis and of all inflammation, that such symptoms cannot be correctly assigned to meningitis or to any structural lesion, but are to be considered only as the toxic effect of the typhoid fever

poison. Neither can I understand how the speech center can be affected by a meningitis without previous and greater injury to the motor areas, which, being in closer opposition to the meninges than the center of speech, would primarily and to a greater extent be subjected to meningeal pressure. For this reason, paralysis is as common in meningitis as aphasia (barring, of course, comatose cases), is rare.

The Polyclinic.

MEDICO-CHIRURGICAL HOSPITAL.

FOR SUBACUTE CONJUNCTIVITIS.

℞.—Zinci acetatis..... gr. ss.
Aquæ dest..... ℥j.—M.

Or,

℞.—Zinci sulphatis ..... gr. ¼.
Acidi borici ..... gr. x.
Aquæ dest..... ℥j.
M.—S. Use freely, three times a day.

Apply vaseline to the edges of the lids at night. The former seems to act better in warm weather.

—*Fisher.*

FOR A CASE OF HEMOPTYSIS.

This was a large, well-nourished man, covered with prickly heat, and dripping with perspiration. Several bronchial hemorrhages had occurred within a week, followed by slight fever. He was ordered to abstain from liquids, to take a few drops of phosphoric acid to relieve thirst, and apply flying blisters to the chest. Internally he was given Gardner's syrup calcium hypophosphite, a teaspoonful four times a day.—*Waugh.*

FOR UTERINE HEMORRHAGE.

℞.—Ext. cannabis Indicæ..... gr. viij.
Ext. ergotæ fl..... ℥j.
Ext. hamamelis fl..... ℥ss.
Tinct. cinnamomi..... ℥ss.
M.—S. ℥j every three hours.

—*Montgomery.*

ASTHMA.—This patient's paroxysms are preceded by sneezing. There is some hypertrophy of the nasal mucous membrane. He sweats profusely and is tormented with constant thirst. This renders him sensitive to every breath of air; and demands first treatment. He is directed to drink nothing but hot, weak tea, a tablespoonful every hour; all other fluids being interdicted, except a small cup of tea after each meal. The nasal affection is treated by the application of chromic acid, liquid vaseline with one grain to the ounce; and he is given this:

℞.—Tinct. belladonnæ . . . . . ℥ij.
Ext. grindeliæ robust. fl. . . . . ℥j.
Tinct. hydrastis, ... q. s. ad . ℥iij.
M. S.—℥j. thrice daily.

—*Waugh.*

ABDOMINAL PAIN.—Three cases have come before me of constant, moderate pain in the abdomen, as the one symptom for which relief was demanded. The pain was of the same character in all; and the diagnosis only to be made tentatively. In the first, the course showed the pain to be due to caries of the vertebræ, finally causing death. In the second, death ensued, the cause being ulceration of the vermiform appendix with consequent perforation. The third case is before you; and here the pain is due to constipation, with impacted feces; vesical paresis is also present. He has been taking elixir of cascara sagrada, and compound syrup of hypophosphites; and using a hot enema whenever the pain became severe. So much relief has been experienced that he is confident of a speedy cure.—*Waugh.*

PHILADELPHIA HOSPITAL.

CLINIC BY E. LAPLACE, M.D.

GENTLEMEN: This little patient was brought into the hospital one month and a half ago, with a compound fracture of the tiba and fibula in the middle third. The wound in the skin was deep and was infected with dirt. It was, therefore, a double compound fracture, and, immediately after being taken to the wards, it was cleansed and put up in a fracture dressing permanently, as soon as possible after injury, and not disturbed until it was entirely well. There was a fracture, and therefore the indication was to replace it. There was a wound, and the indication was to sterilize it by removing all dirt and foreign matter, and cleansing with acid sublimate solution. In dressing the wound, we had to forsee swelling that would cause pain, and to meet it we applied sufficient cotton around the dressing to make allowance for it. The cotton yielded just as the swelling took place, and yielding did away with any pain. Having met these indications, this case had recovered under the *ideal treatment* of fracture. The leg was washed with acid sublimate and iodoform, put in and on the wound. The plaster of Paris dressing was applied to the leg, and the wound was left open. The plaster of Paris being applied, the wound was dressed with iodoform and sterilized cotton. The indications for dressing the wound were temperature and pain, for as long as there was no pain or fever we were sure the wound was doing well. This dressing remained in position for one month and a half, and when removed the bones had united perfectly, and the wound had healed without one drop of suppuration. The wound was never looked at from the day it was put up, even though it was a compound fracture of the lower extremity.

TUBERCULOSIS OF THE ANKLE.

Here is a case about which I have often talked to you. Here is a man, who has been apparently well all of his life; who sprained his ankle and has had a great deal of trouble resulting from it. In place of progressing as nicely as such cases generally do, it was noticed that the swelling would not subside, and that there was œdema, pain and fluctuation. We incised both sides of the ankle and removed a considerable amount of pus, which, when we first incised, was cheesy. That man had all his life the tuberculous diathesis, or tendency, and it only required a slight accident, that to us would amount to nothing, to develop tuberculosis that is present in the tendons and cellular tissue around the ankle-joint.

LUPUS.

The next case I bring before you is one of tuberculosis of the skin, or ordinary lupus. This case is highly interesting, from a diagnostic point. The woman has a double perforation of the palate, and, from her condition, as a rule, you will almost be disposed to diagnose it as a case of syphilis. Furthermore, she has had a miscarriage. This sore on her skin began three months ago, and came on gradually without any injury to excite its development. It is

purulent and the base is filled with rosy granulations. The skin and cellular tissue is affected, while at the apex of both lungs there is considerable consolidation with tuberculous matter. Notice the color, superficial condition and the tendency to dissect the skin, and is different from syphilis that ulcerates and burrows down into the tissues and has hardened edges.

TUBERCULOSIS OF THE EPIDIDYMIS.

The principal case I want to bring before you this morning, is one of tuberculosis of the epididymis—an affection that is very important from a diagnostic and therapeutic point of view. Three months ago this man noticed a lump in his scrotum. It has been his impression, all his life, that he had two testicles on the left side. Feeling the scrotum on the right side, it appears normal, but on the left it is different, for there are three enlargements. The top one is soft and fluctuating; the middle one is doughy and soft, and below is a hard mass, as hard as a stone. I might say that, until this morning, I was puzzled to know what this soft tumor at the top was, until I introduced an aseptic hypodermic needle and drew off a whitish fluid that had no spermatazoa in it on examination. It is a spermatic cyst. It is possible to have a spermatic cyst without spermatazoa in it. In dealing with tumors of the testicle, there are three great affections that almost stare us in the face—tuberculosis, cancer and syphilis. Generally, we must think of these three, and must prove, by exclusion, that it is one or the other. It is very easy to eliminate hydrocele and varicose veins. Inquire into the history, if he has had syphilis. This man did not have any of the signs of syphilis, such as eruption, sore throat or enlarged glands, and we can exclude it as the history is negative. This being eliminated, the next point to be considered is cancer. There is no hereditary taint or history; the tumor has come on in a short time, and was painful from the first, and became harder and harder, and took for its seat the epididymis, and I am sure it is not cancer. It must be tuberculosis. Why tuberculosis should attack the epididymis, we cannot explain, but 90 per cent. of the tumors of the epididymis are tuberculosis, especially in the head of it. Cancerous growths develop in the testicle and rarely attack the epididymis, except secondarily. Fibromas have been found to develop in the epididymis, but not in its head. In the treatment of this case I simply cut down on the tumor, and, having done so, put the hemostatic forceps around the cord, and cut it below, and ligate the vessels. The tumors and testicles are removed, and the parts dressed with iodoform and ether; apply a continuous suture and drainage and the wound will heal kindly. The specimens are now before us for examination. The upper one is a spermatocele, the other is a hydrocele, and lastly, the other tumor is tuberculous, with a cheesy deposit in the very center of the hypertrophied epididymis.

CLIMATE AND DISEASE.—1. In tracing the connection between the weather and disease, the tendency is to go too far and ascribe to atmospheric conditions more of a causative influence than we can prove. Because a climate may expedite or inaugurate a cure is no inherent proof that a climate, even though it have the opposite atmospheric conditions, will, *per se*, cause the disease.

2. Climate means more than the weather, and includes data concerning the contour of the land, the situation of hills and forests, and the nature and chemistry of the soil.

3. With no reason can we measure a climate by its absolute humidity alone, or ascribe to absolute humidity the supreme control over the origin of disease. Coincidence of data does not necessarily show a causative relation.

4. The degree of absolute humidity is more a resultant than a cause of atmospheric conditions, although it may be frequently a mediate cause of atmospheric changes. In no way, however, can we measure the value of absolute humidity, or discuss its influence upon our bodies, until we bring it into relation with something beyond itself. We are, therefore, constantly discussing relative humidity—if we use the English language with its proper meaning.

5. To assume that the weather controls health and causes disease by its influence upon the respiratory organs alone, is utterly to ignore the vascular and secretory systems of the body with their important functions. The assumption being unwarrantable, all conclusions and inferences based upon it are illusory.

6. *Absolute* humidity, *per se*, can have no influence upon health. Its influence depends upon the temperature and accompanying atmospheric conditions. A low absolute humidity in *cold* air is the mediate factor in abstracting *heat*, not moisture, from our bodies. A low absolute humidity in *hot* air will abstract moisture from our bodies proportionate in amount to the degree of relative humidity in which our bodies live.

7. *Relative* humidity measures the moisture absorbing powers of the air, is an expression of our surrounding atmospheric relations, and is modified by, and gives us a working notion of, the direction of the winds, and, at times, of the amount of sunshine. It represents conditions that are necessary to health and essentially local in their nature. It is, therefore, of great value to the physician.

8. The best single datum to be used with the temperature is the *dew point*, since in combination with the temperature it will enable us to determine both the *absolute* and the *relative* humidity. Definitely given, also, the amount of sunshine or of cloud, we can form a fair idea of the hygienic value of a given locality to health.

9. Condensed moisture has a great influence upon health. In some of its phases it is equally as important as humidity (aqueous vapor). When in the form of mists, exhalations, and fogs, it has, unfortunately, often been confounded with humidity.

10. The chief atmospheric conditions modifying health, and therefore causing disease, are sudden and violent *daily ranges in temperature*, and secondarily *in relative humidity*.

11. The *barometer* is an important but too frequently neglected instrument. A single observation of it gives us nothing that is of true value until it has been compared with preceding and succeeding inspections. The barometer should, then, be in a physician's office for daily use, and not for mere display.

12. We know, beyond doubt, the influence which certain low and wet localities exert upon health, but we do not understand completely the Why of this influence, so that we are not yet able to formulate with precision the general law under which our empirical observation is a particular instance.

13. I venture the prediction that when in future years our knowledge of the electricity of the atmosphere is more completely studied, we shall find in that mysterious force some solution of this problem. But I spin no gauzy theories upon the subject.

—Smith, *Boston M. and S. Jour.*

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WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

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THE NEED OF A HOSPITAL AT SITKA.

ALASKA, our remote northern possession, is in various ways attracting a considerable share of public attention. While the protection of the seal fisheries constitutes a national problem, other questions directly concerning the interests of the natives of that region demand the consideration of the press and the people. The urgent need of educational facilities has, to a certain extent, impressed itself upon the public, but the necessity for the establishment of efficient medical service is a matter not generally understood.

An editorial in the Sitka *Alaskian*, of August 9, comments in a corroborative manner on a paper by Dr. W. F. Arnold, U. S. N., in the *Southern Practitioner*, on Sitka's Sanitary Status. Much practical information is given concerning the lamentable physical condition of the Indians of Alaska, and the necessity for the amelioration of that condition and the relief of the suffering aborigines.

Alaska contains a native population equal to one-fifth of the total number of Indians cared for by the Government. Two million dollars is annually expended for the support, education and sustenance of the Indians in the United States, while those of Alaska receive only a paltry appropriation of twenty thousand dollars, towards the maintenance of a few industrial and boarding schools established and supported by religious bodies.

It is true that the Alaska Indians and Esquimaux are self-supporting, but that is no reason why they should not be afforded an opportunity to improve their physical condition, which, at present, is a disgrace and discredit to the Government, and will eventually lead to their extermination. Large hospitals should be erected and liberally supported, in order to stamp out the frightful contagious and infectious diseases; caused more by ignorance than arising from vice, such diseases being prevalent among 75 per cent. of the Alaska tribes.

The Government having neglected the welfare of her newly-acquired possessions, and disregarded all recommendations and protests in behalf of these suffering people, the editor of the *Alaskian* hopes for good results in the way of reform, from the circulation of such papers as that written by Dr. Arnold.

Wherever a portion of the earth is penetrated by civilization, missionary efforts are established in behalf of the native population. The mandate to convert all nations is not left to the slowness of government legislation, but takes individual form and promptness. While the Prophet of Nazareth preached salvation of souls, he healed diseased bodies, establishing an example for true benevolence. Among the millions of those who profess to exercise the spirit of loving kindness in this great land, surely there is a fountain of charity ready to send forth healing waters for the diseased Alaska Indian. The hospital stands beside the chapel in foreign mission stations. Shall our own Territory be lacking in this feature? With the crowds of physicians and nurses annually issuing from our colleges and hospitals, and the ever responsive liberality of our people, must the endowment of a suitable hospital in this locality be left for national consideration alone? The story of the Indian has been a blot on the pages of history which should not be repeated.

UNSANITARY SCHOOL BUILDINGS.

SEVERAL months ago the Philadelphia Board of Health made a tour of inspection among the public schools of this city, with a view of ascertaining their sanitary conditions. The result was that seventeen schools were found to be unfit for use, on account of bad drainage, filthy closets and urinals, and other unsanitary conditions. At that time the Board requested that these schools should be "improved and repaired for the benefit of the health of the school children." Eight of these schools have been put in order, although it is still claimed that danger exists in some. The nine remaining schools have not been touched. They harbor, in all, 7,450 children for the best part of the day, in an atmosphere that cannot be other than disease-breeding. It is now rumored that if these buildings are allowed to remain as they are the Board of Health will declare them public nuisances, and order them closed. While such a procedure would throw nearly 7,500 children out of school, still this would be far better than for them to be confined for hours in such a dangerous building.

What is most conducive to a child's health is plenty of fresh air. Robbed of this, the constitution becomes enfeebled and undermined, and an easy prey to the diseases of childhood. Again, even when every precaution is used, children sickening with contagious diseases will be found in schools. Where the ventilation is good, the drainage efficient, and the closets sweet, the danger of contagion is infinitely lessened; but where the drainage is imperfect and the plumbing bad, the closets will soon become stopped up, and the exposed germ-laden excreta will not only vitiate the atmosphere, but may prove a source of actual contagion.

While we heartily commend the prompt action the Board of Health has taken in this important matter, we also see that their power is limited, and that they can only suggest and advise, and it is to be regretted that the Board of Education, after having been fully aroused to the gravity of the situation, has not done more to remedy the evil.

Annotations.

MEDICAL editors should make it a rule never to publish second-hand abstracts; but to limit their reproductions to abstracts from the original articles. Only in case of some item of undoubted practical value, which in the original form has escaped the eagle eye of the editor, should this rule be broken. For want of it, we see the parasitic journals, which are wholly made up of cuttings, credited with matter to which they have only the pirate's title. And, sometimes, the editor forgets that he has already seen an item, and republishes one as stale as the long-since exploded story about Drumine; which is actually resurrected by a Western journal and republished from it by another in the South. Usually both these journals are distinguished by the freshness and excellence of their selections.

BALLOONING OF THE RECTUM.

IN the *Lancet*, Burghard summarizes fifteen cases of this condition, first described by Bryant in January, 1889. This consists of an extreme dilatation of the rectal walls, so that the examining finger enters a large cavity, the walls of which have to be sought. Bryant stated that this condition exists only in connection with stricture of the rectum in its upper part, or of the sigmoid flexure. Of Burghard's cases five were associated with stricture (two as yet not confirmed by autopsy), two with fecal obstruction, and five with chronic constipation; two with spinal fracture, and one with extreme angular curvature from dorso-lumbar caries.

The cases of constipation were in old people, the youngest being forty-five. Matthew Duncan describes a semi-paralyzed "pouched" rectum in a woman, leading to retention of feces. In these cases there was no pouching, though the folds of Houston stood out like shelves, and sometimes upon them rested fecal matter. The greatest dilatation was backwards, so that the rectal wall seemed to be fitted into the sacral hollow.

The factor necessary to produce this ballooning is probably a paresis of the muscular portion of the rectum, with loss of contractility, distension by feces, flatus or enemas. Some cases showed that the rectal walls were thinner than normal. There is some analogy with senile atony of the bladder.

SCHULTZE says that beer should be drank out of gold-lined silver mugs. Next to these comes tin, and then covered salt-glazed stone mugs. Lead-glazed mugs and glass should be excluded.

Linke, however, disputes these conclusions, and states that 20,800 liters of beer must be drank from the worst kind of lead-glass to take in one milligramme of lead oxide.

Until the matter is settled it is best to refrain from beer; or at any rate to refuse it unless served in silver, gold-lined mugs.

The Medical Digest.

JACOBSEN (*Lancet*) reports a case of puerperal eclampsia occurring six days after delivery, and ending in death. The convulsion, from which she never recovered, occurred just after the patient had had a hot vaginal douche, during which she complained of feeling a little faint. The convulsions were replaced by coma, and in this state she died in about ten hours after the first attack.

DENUCE concludes an account of his researches upon the etiology of tetanus and vaccination as follows: We may then consider these experiments as ended and definitely adopt their results. They show that vaccination with strychnine gives to animals a considerable resistance against the tetanic virus, and furnishes an argument of great value in favor of the theory proposed and defended by Peyraud.

—*Jour. de Méd. de Bordeaux.*

PILCHER (*Med. Record*) reports fifty-one cases of whooping-cough treated by bromoform, and pronounces it the best known remedy when properly applied. It must be kept in dark, well-stoppered bottles. If it turns brown it should not be given. For children under one year he gave two to three drops thrice daily; for those from two to four years old three to four drops three to four times daily. The doses were increased on the third day. The quantity required to effect a cure was from five to twenty grammes; the time, ten days to four weeks. The dose was given in a teaspoonful of water. The bromoform sinks to the bottom of the spoon.

GAUCHER recommends boric acid as a remedy for tuberculosis. For five years he has experimented with this drug. The toxic dose is one gramme per kilo; or one-thousandth of the animal's weight. Elimination goes on actively by the kidneys; also by the sputa. Experiments on animals show that boric acid given with the food prevents the development of tuberculosis. In consumptives who took a daily dose of 15 grains, there was a notable diminution of the expectoration, which was also more fluid; the lesions remained stationary and the general health was more satisfactory. The author thought that a drachm per day could be taken by an adult.

—*La Medicine Moderne.*

ADDISON'S DISEASE.—Caven, in the *Canadian Practitioner*, reports a case of Addison's disease, which presented the following points of interest:

1. The limited area of the so-called bronzing, which was confined to the face, neck, hands and wrists. There was absolutely none on the buccal mucous membrane, or on any other part of the skin except that mentioned. Some small pigmented spots were found on the one arm, but these the patient said were moles, and had always been present.

2. The conjunctivæ were yellowish, as in jaundice; not pearly white, as usually found in such cases.

3. The pigmentation of the lymph glands of the mesentery appears to be an unusual feature. This pigmentation showed on the outside of the glands and on section.

The supra-renal capsules were enlarged, containing bean-shaped caseous nodules. The sympathetic ganglia and nerves presented no affection to be made out by the naked eye. The patient had been ailing for five months.

ACUTE MYELITIS.—In the *Med. Bulletin*, Hopkins describes a case of acute myelitis, in a woman seventy-one years old. She first felt a pricking in the fingers and toes; the sensation extending over the whole body. Partial loss of motion followed, so that she could not turn her head or body, but could make some movements. The inspirations were slow; expirations short and quick; breathing 20 per minute; pulse 60, and weak. Slight fever. No headache. Pupils normal. Examination showed tenderness over the vertebra prominens, where slight soreness had existed for some time previously. General anesthesia. Deglutition impaired. No history of injury, recent or old. Mind clear.

Bromide of potash was given in small doses, with digitalis; with chloral at night. Improvement commenced in a few days, and at the end of a month she was able to walk about her room.

HYOSCINE.—Sohrt found that this drug caused acceleration of the heart, from depression of the cardiac inhibitory apparatus without any change in the blood pressure. He therefore thought there was no effect on the vaso-motor center. Pavloff, however, finds that it causes at first a slowing of the heart, from stimulation of the inhibitory apparatus, afterwards acceleration from depression coming on. This last stage is antagonistic to eserine. The blood pressure was always increased for a time, then fell to, or below, normal. Pavloff also found it somewhat retarded respiration, and lowered the electrical irritability of the cerebral cortex. Hyoscine also antagonizes the effect of pilocarpine on the saliva; it has no action on the temperature or on the reaction of the blood; it lessens the irritability of the brain, and slightly the perception of pain; but does not affect tactile sensation. The chief difference from atropine is the effect of hyoscine in lowering the irritability of the cerebral cortex.—*Lancet.*

TEISSIER recommends the following treatment of typhoid fever:

1. Morning and evening, a cachet of naphthol, six grains; with salicylate of bismuth.

2. Four cold enemas every twenty-four hours to induce diuresis.

3. After the evening cold enema, another containing a drachm of extract of cinchona, and 9 to 15 grains of quinine dissolved in infusion of valerian, as a tonic.

4. Lastly, a regime composed of about 10 ounces of claret, milk, and a little soup.

This treatment was employed in fifteen consecutive cases, not selected, some being very severe. But one died, of suppurative nephritis, at the end of the attack. In nearly all, when antisepsis was complete, as shown by the green urine, the fever fell gradually, albuminuria disappeared, the spleen lost its abnormal volume, the tongue became remarkably moist and the saburral coating fell off. Short and speedy convalescence ensued.—*La Medicine Moderne.*

ANTIPYRIN IN DERMATOLOGY.—At the last meeting of the Dermatological Society of Berlin, Dr. Blaschko reported the results of experiences with antipyrin in the treatment of various affections of the skin. The remedy was first given in a case of urticaria papulosa. The case was one in which several well-known remedies, including tar and naphthol, had been used without beneficial effect. Not only was the itching relieved, but a permanent and complete recovery resulted.

Blaschko mixed the powder with equal parts of sugar, and of this mixture he administered as much as could be taken at a time, to half a teaspoonful. When prescribing the drug for children, the following formula was used:

℞.—Antipyrin..... 5 parts.
Simple syrup..... 25 "
M. Sig.—One teaspoonful at night.

Also in simple urticaria antipyrin decidedly ameliorated the unpleasant symptoms, while it did not effect a permanent cure. In cases of nervous pruritus and prurigo, doses of from seven to fifteen grains, given three times daily, had most beneficial effects. The drug was similarly found valuable in pruritus senilis, pemphigus, and exanthema exudativum multiform. It also allayed the itching of eczema.
—*Wiener Med. Presse.*

INFREQUENCY OF SYPHILIS IN ENGLISH COUNTY PRACTICE.—Alfred Freer, President of the Birmingham and Midland Counties Branch of the British Medical Society, in a presidential address, speaks as follows of his experience with syphilis:

"I am old enough to remember M. Ricord's instructive and oft amusing lectures under the trees of the garden at the Hôpital du Midi, when he used to operate *sub die* early in the morning. At that time one could not help looking at the world through a syphilized atmosphere, and when I came to country practice, I found plenty of examples of the old scourge; but for many years past I have seen less and less of syphilis, so I suppose the nymph is beginning to take up residence more exclusively in cities and large towns; or, perhaps, she is shy of appearing before graybeards. Her prime exhibit, the true Hunterian chancre, on which the great Ricord used to expatiate so eloquently, has almost gone from my gaze. It is a matter for national congratulation that, owing to the improvement in habits of cleanliness among the people, if not to improved morality, this disease is far less virulent than formerly, even in our large centers." That syphilis is not a disease the physician is often called upon to treat is assuredly the case in Philadelphia; but we are not so sure that the affection is less prevalent than of old. Perhaps the enterprising retail druggist could throw some light on the subject.

OSTEOMYELITIS FROM PNEUMOCOCCI.—The pyogenic properties of the pneumococcus are to-day well known, and human pathology counts some cases in which this microbe has been considered the agent of suppuration. It has been often encountered in serous purulenta, especially in pleurisy; in the synovial membranes in suppurative arthritis, it has been found in a state of purity. As to the osseous tissue, the pneumococcus has been often found in mastoid suppuration, consecutive to otitis. Here the microbe passes to the bone by continuity of tissue with that first affected. But it may penetrate to the bone as it does to the endocardium and the meninges, by way of the blood. Recently, Netter and Mariage have seen the pneumococcus invade the foyers of multiple fractures, without external opening, and there excite suppuration. Leyden reported in 1885 a case of labor pneumonia, in which an abscess of the thigh developed; probably a localization of pneumococcus infection in the osseous tissue, through the medium of the blood.

Lannelongue reports the case of a child, seventeen months old, affected with an abscess involving

the whole right thigh and the articular cavity of the hip. The diagnosis was osteomyelitis of the upper end of the femur, with epiphyseal separation. The abscess cavity was opened freely, the pus evacuated, and some improvement followed; but the child died in one month of marasmus. On microbiologic examination of the diseased tissues, the microbes existing presented the characteristics of Frankel's micrococcus.
—*Le Bulletin Médecal.*

Operation for Bunion.—Dr. Fowler, following Peterson, of Kiel, in his operations upon tuberculosis of this joint, attacks the joint from the outside, cutting backward between the toes, loosening the great toe sufficiently to allow turning it backward alongside the inner border of the foot; wedge-shaped pieces are then sawn from the joint surfaces of the first metatarsal and the phalanx thus exposed. The pieces removed from under the bunion are joined by the internal lateral ligament, leave a **V**-shaped depression, and represent from a half to two-thirds of the articulating surfaces.

The advantages claimed by Dr. Fowler for his operation are:

1. Ease of access to the diseased parts and their complete exposure.
2. The incision is through sound tissue.
3. The external lateral ligament is cut, after which the toe falls readily back into good position.
4. The exostosis is removed (Reverdin).
5. Tenotomy of the extensor pollicis can be done through the same incision.
6. The abductor pollicis is not touched.
7. The scar is out of the way of future pressure.

The operation fulfils these essential indications so satisfactorily that it may seem superfluous to make any changes, but in studying the operation upon the cadaver, it seemed to me that the incision and the loosening of the toe injured, unnecessarily, sound tissue. I accordingly made a long incision on top of the joint to the inside of and parallel to the tendon of the extensor pollicis, dissecting off the tissues from the inside of the joint with the periosteum elevator, till the bony surfaces were well exposed, when I found I could easily remove the **V**-shaped piece from the joint with the bone forceps. The toe now came back into place.

The piece removed should include more than half of the joint surface. It can be made at an angle, leaving the larger portion on the under side, which gives a broad portion to tread upon.

I have operated thus on three joints with good results.—Hunter, in *N. W. Lancet.*

Influence of La Grippe upon Surgical Operations.—Verneuil presented a paper to the Academy of Medicine upon this subject. His conclusions were:

1. La grippe exercises a malefic influence upon wounds and surgical operations.
2. This is felt during the attack, and during convalescence.
3. It is especially manifested by a tendency to suppuration.
4. The pyogenic tendency is shown by the appearance of conjunctivitis, otitis, parotiditis, pleurisy, pericarditis, peritonitis, purulent arthritis, furuncles, isolated or multiple abscess, superficial or profound, orchitis, suppuration in organs diseased previous to the attack of la grippe, as ovarian cysts, hydrarthroses, cystites, etc.
5. The venous, arterial, and lymphatic systems spontaneously becamed inflamed, with gangrene, from emboli derived from endocarditis vegetale.
6. Analogous complications in surgical cases, as:
7. Suppurations of wounds; even surgical cuts performed antiseptically.
8. La grippe following an operation delayed the healing, re-opened the wound and brought suppuration. If the wound occurred during convalescence, in some cases cicatrization did not occur normally; in others, the traumatism brought back or aggravated la grippe.
9. Certain complications. In benign cases, marked fever; in broncho-pulmonary complications, an added intensity, perhaps causing death; in others, septicemia and pyohemia; in others, the wound inflamed, sphacelus even, and the margins erysipelatous or lymphangitic.
10. The possibility of la grippe must be taken into account when deciding questions about wounds. A brusque rise of fever in the course of a surgical case, should cause a suspicion of influenza.
11. Influenzal pyohemia is peculiar in that it occurs often spontaneously, the abscesses are fewer, they often contain pneumococci and other pyogenic microbes; rigors are usually absent, the fever does not oscillate so irregularly.
12. The termination in cure is less rare in influenzal cases. This renders the surgical treatment of these abscesses by incision, drainage and antiseptic lavage more hopeful.
13. The reciprocally injurious influence of la grippe and traumatism being demonstrated, surgeons should refrain from operating during this epidemic, except in cases of necessity; especially in affections of the respiratory tract.
14. Before operating on influenzal cases, their general health should be restored, and a tonic and restorative course employed, with internal antisepsis by means of quinine, naphthol, etc. Change of air would probably prove beneficial.
15. Influenza seems to accelerate the growth of tumors.
16. It also influences pregnancy and its sequels unfavorably.—*Bull de l'Acad. de Méd.*

Medical News and Miscellany.

Opium can now be legally produced in China.

Professor Duhring has gone to Bar Harbor.

Influenza has appeared again in Breslau. Where's that "wave" theory?

Professor H. Earnest Goodman has returned from the Berlin Congress.

Professor J. V. Shoemaker has also returned. He now speaks nothing but French.

The death of Dr. Herman Rooker, of Philadelphia, was caused by opium poisoning.

A typhoid patient in the Cork Hospital died from an overdose of paraldehyde—about 3vj.

Chiropodists smile gleefully as they hear that wooden shoes are likely to become popular.

Dr. Z. P. Boyer has been appointed Medical Examiner of the Reading Railroad in this City.

THE Parisian authorities have taken steps to have the cars which transport cattle disinfected.

THE city of Toulouse wants a university. It is feared, however, that her morals are toulouse!

ICELAND now has the influenza, which on former visits has proved more fatal there than cholera.

DR. M. L. HERR, of Lancaster, arrived on the City of New York from Liverpool, with his daughter.

THE Eastern Dispensary, of New York, pays its doctors $200 per annum, or about 33 cents per hour.

VIDAL recommends acetate of ammonia in scarlet fever, giving fifteen grains for each year of the age.

THE caterer who supplied the G. A. R. in Boston has been prosecuted for selling them adulterated milk.

CRESSON must be doubly delightful to the President and his family, after a summer at Mosquito Point.

DRS. EDWIN TOMLINSON, E. E. JEFFRIES, AND E. R. SMILEY were nominated last week for Coroner of Camden.

IT is reported that Provost Pepper and his son have both been attacked with a mild form of grippe in Germany.

DR. CHARLES W. BROWN has removed from Elmira, N. Y., to 902 Fourth street N. W., Washington, D. C.

EDINBURGH has 236,000 inhabitants, of whom 103,095 receive medical charity. The Scot is certainly canny.

DR. J. MCFARLAND, of the resident staff of the Philadelphia Hospital, has gone to Berlin for a special line of study.

IT is said that the Italian clergy, unlike those of France and the most part of England, do not object to cremation.

GARIBALDI'S widow is reported to be about to be married to Dr. Gabriel Tanferna, of the Naval Academy of Leghorn.

AUSTRALIA consumes 276 pounds of meat annually for each person, the United States 120, Great Britain 105 and Russia 48.

PROFESSOR W. S. STEWART addressed the Congress in German, and is detained in London until his jaw has been cured.

THE Vienna Society of Hygiene has begun a collective investigation to ascertain the factors contributing to longevity.

A NEW YORKER has ornamented all the projecting corners against which a man can run in, in his bedroom, with luminous paint.

THERE were treated at the dispensary of the West Philadelphia Hospital for Women, during August 131 cases; number of patients in hospital, 9.

S. QUALE, who recently died at Eau Claire, Wisconsin, left a wish, but no will, that his estate should be devoted to a hospital for cripples in Madison, when its value reached $1,000,000. His wife has made the desired disposition of his property.

J. E. BLANK and J. Batt, of New York City, were brought before Judge Patterson at the Tombs for practising medicine without a license.

DR. AND MRS. HUGHES, of Fortieth and Chestnut streets, have returned from Spring Lake, where they have been sojourning during the heated term.

From May 13 to August 11 there were, in Spain, reported 1,672 cases of cholera, with 834 deaths; of which 80 per cent. were in the province of Valencia.

ESMARCH states his belief that the proximity of cemeteries, and drainage water from them, have no influence in the spread of epidemics or contagious diseases.

DR. WETHERILL has discovered another imbecile being improperly treated at home; this time it is a woman who has been locked up fifteen years by her brother.

Dr. CHARLES P. GRAYSON, of 122 South Forty-second street, has returned to the city after an extended visit to Narragansett Pier and other New England resorts.

A FEMALE patient mysteriously disappeared from St. Agnes' Hospital, and the authorities have not been able to discover her present whereabouts, or how she got out.

M'LLE EVERAERT has been appointed Assistant-Physician to the Hôpital S. Jean in Brussels. This is the very first female staff appointment in any Brussels hospital.

MEDICAL INSPECTOR TAYLOR made a report last week upon the condition of some of the principal schools which had been declared unhealthy in a report previously submitted.

THE Italian government has proposed to France an international scheme of sanitary control for the Suez Canal and the Red Sea. The French journals sit down on the project at once.

AN oleoresin is now prepared from pumpkin seeds which is said to possess all the tænicide properties of the latter. It is not pleasant to the taste. The dose is half an ounce.—*Pharm. Era.*

TWENTY dealers in milk in Philadelphia are to be prosecuted for selling watered, skimmed and colored milk. They are all persons who have groceries, etc., and merely keep milk as a side issue.

HEART failure caused thirty deaths in Boston during 1888; forty-seven during the first nine months of 1889; forty-one during the last quarter, and sixty-three during the first quarter of 1890.

A PRIVATE letter from Dr. P. D. Keyser, who was commissioned by Mayor Fitler to examine the sewage systems of leading European cities, during his trip abroad, reports that his investigations have been very profitable.

THE custom known as the *couvade* exists in Guiana, where a traveler says that a male Indian refused to help haul the canoes, on the plea that a child must have been born to him about that time, and that any undue exertion on his part might do harm to the infant. It is probable that this belief exists in all countries, and that this beautiful solicitude for the welfare of the unborn babe is often mistaken for pure laziness.

DR. NORVIN GREEN, the head of the Western Union Telegraph Company, is a Kentuckian of giant frame, nearly seventy-three years of age. He was a practising physician in the early days of his career.

THE wholesale poisoning of fish in Miller's and Griess' race, Pottstown, Pa., was investigated by Dr. W. B. Atkinson, of the State Board of Health, who found the trouble came from a lot of diseased meat which had been thrown into the water.

THE demonstration of the use of Dr. Ward Cousins' antiseptic tympanic membranes at the British Medical Association is said by the *Journal* to have been very successful. These were described by Dr. Cousins in THE TIMES AND REGISTER this summer.

SHONGOLOWICZ describes the microbe of granular ophthalmia as a short bacillus, very difficult to stain. Gentian violet is the best stain. Different segments take the stain irregularly, and this has led observers to look upon it as a micrococcus in chains.

WE have investigated many newspaper tales concerning the burial of living persons supposed to be dead, and have not yet found one in which there was the slightest truth. We would be glad to know of any case coming under the observation of any reader.

FROM every quarter the doctors who have been summering are flocking home, hearty and jolly, ready to relieve those who have borne the burden during the summer heat. Now is the time for the latter to take the vacation, without which no one is fit for the winter's work.

ONE of the best ideas yet broached is that of utilizing General Hastings' splendid executive abilities by placing him at the head of the World's Fair. With such a man as Director-General, and the enterprise of Chicago to back him, there could be no doubt of success.

FICTION has been grafted on the medical science. Announcement is made of a book in England in which the cheerful subject of "Diseases of the Liver" is worked into a "pleasant vein of fiction, thus combining useful knowledge on an important subject with all the charm of romance," as the prospectus puts it.

A LITTLE ripple of discontent was manifested by some of the nurses at the Philadelphia Hospital, on the admission of a colored pupil. To the credit of the girls, the feeling quickly evaporated. The new comer is a mulatto, from Oberlin College. She passed a creditable examination, and earned her admission.

GLEY had an opportunity to observe a man who was guillotined, within one minute after the knife had fallen. The heart beat for six minutes, the contractions of the auricles and ventricles being independent of each other. This is the first time in the history of science that such an observation has been made on a human body.

THE residents of Somerville, a settlement on the east side of Germantown, who send children to the Spencer Roberts School on Mill street, near Weiss avenue, are very much alarmed as to the future health of their little ones, if they use the water from the spring located outside of the school property on Mill street. The foundation of their fear lies in the fact that the spring will be fouled by the drainage from the wells of two outhouses now in course of erection, which stand about forty feet from the spring.

Lyada claims that yellow fever did not exist in Cuba until imported with slaves from Africa.

DR. DUNCAN MACFARLAN and about a dozen friends have been camping in the Adirondack Mountains, forty miles above Tupper Lake, for several weeks, and were very successful in both gunning and fishing. The doctor shot several bucks and does, and caught a large bear, and the whole party had a jolly, healthful, pleasant time, and returned much recreated.

DR. JUNKER, who learned in Central Africa to relish fried ants, and lived for years on a negro bill of fare, expresses decided views in his new book on the way to get along in the Dark Continent. He goes so far as to say that in his opinion the white man who accustoms himself to native food will keep in better health than if he enjoyed the best of European cookery.

THE laboratory of H. K. Mulford & Co. was totally destroyed by fire last week, and, unfortunately, was only partially insured; however, they are at work again, and the retail store, which was fortunately saved, has continued work uninterruptedly. It is a progressive firm composed of three young men, H. K. Mulford, Milton Campbell, and E. V. Pechin. They are prepared to fill all orders.

THE State Board of Charities held a regular meeting at the rooms 1224 Chestnut street, last week, with President Mahlon H. Dickinson in the chair. The other members present were Dr. J. W. C. O'Neal, of Gettysburg; Colonel H. M. Boies, of Scranton; Thomas W. Barlow, William B. Gill, and Cadwalader Biddle. Secretary Henry M. Wetherill, of the Committee on Lunacy, was also present on invitation.

IN using porcelain filters it is necessary, once a month, to open the filter, remove the porcelains, brush them well and plunge them for an hour into a mixture of five parts pure water with one part of commercial muriatic acid. They should then be rinsed in pure water, replaced, and the first quart of water filtered thrown away. If the water is muddy, this must be done twice a week. The Gate City stone filters should be brushed and rinsed every day.

NORTH DAKOTA has again approved her claims as the best place to emigrate from. In the preceding five years her record has been: three seasons the crops were killed by drought, once by frost in the middle of August, and the fifth summer the wind blew the wheat out of the ground. This season, what little grain had escaped mischance, was ruined on September 5 by hail, which broke the windows and drove the occupants to their cellars for shelter.

A VERY remarkable accident is described in the *Lancet*. An Italian vessel had in her hold a number of wine casks, into which sea water had been pumped to act as ballast. One of the crew opened the bungs to let out the water, when a stream of poisonous gas rushed into his face, and he fell back dead. Each of the other four men went down to the hold and instantly died. The gas increased until, when the captain looked down the trap-door to see what had become of the men, the rush of the gas overcame him, and he fell into the hold with the others. The only survivor of the crew called for help, and when the fumes had diffused so as to become harmless, the bodies were taken out. The accident is attributed to the action of the salt water, during midsummer days, upon the incrusted tartrates in the casks.

Dr. G. Betton Massey has removed his offices and sanitarium to 212 South Fifteenth St.

The hot water pump at a factory refused to work; and it was decided to take it apart; which meant a heavy loss from stoppage of work. Just then a genius in matters mechanical was summoned, who gave three raps on the valve with a hammer, and "she went." Next day the genius proved he was no genius at all, by sending in his bill for $25.50. The price amazed the payer, until he noticed that the bill read: "For fixing pump, $0.50; for knowing how, $25.00." He paid it at once.

The idea might be utilized by the doctors.

During the past few years the subject of hygiene has received marked attention from the German government. In nearly all the leading universities there are now hygienic institutes, thoroughly equipped in every way. Recently the new hygienic institute in the University of Halle was opened. The institute has a lecture-room, and also special chemical, physical and bacteriological laboratories.

At the banquet of the Surgical Section at Berlin, the menu was accompanied by a Latin ode, of which this is the first verse:

Beatus ille qui procul chirurgicis,
Securus inter epulas,
Hilariter maxillis exercet suis
Quæ mensa præbet munera:
Non minus fascinatus symphoniacis,
Jocose blandientibus,
Quam thyrso Bacchi raptus pampinifero,
Solutus omnino opere,
Neque excitatur osteogenesibus,
Nec jam resecto stomacho
Neque intestino abhorret intussuscepto,
Rectique vitat tenebras.

Hail stones.—The *British Medical Journal* states that Dr. Fontin, a Russian observer, has recently demonstrated the existence in hailstones of pernicious microbes or microscopic organisms. The water resulting from the melting of the stones used in the experiments yielded an average of seven hundred and twenty-nine bacteria to the cubic centimeter (a volume about the size of a small marble). Nine different forms of bacteria were discovered, including the bacillus mycoides. "As the abiding place of this bacillus is the earth, the fact that it and its pestilential congeners can be carried to the heavens and returned to the earth with hail, rain, and snow, and directly convey infection, is another of the discoveries which, while adding perchance to the glory of science, impress us with the blissfulness of ignorance, and also with the fact that in the midst of life we are in death."

Mississippi Valley Medical Association.—The Mississippi Valley Medical Association will hold its sixteenth annual session at Louisville, Ky., October 8, 9, 10, 1890. The medical profession is cordially invited to attend. The President is Dr. Joseph M. Mathews, of Louisville, Ky.; Secretary, Dr. E. S. McKee, Cincinnati, Ohio; Chairman Committee of Arrangements, Dr. I. N. Bloom, Louisville. Gentlemen having business with either of these gentlemen can correspond with them, and they will give desired information. The Association is the outgrowth of the old Tri-State Medical Association, which consisted of Indiana, Illinois, and Kentucky. It has now spread over that territory so fertile in soil and sense, the Mississippi Valley. The best men of the profession are on the programme. Among them are the following: Love, Ohman-Dumesnil, Mudd, St. Louis; Geiger, St. Joseph; King, Kansas City; Hollister, Lydston, Belfield, Chicago; Dunning, Indianapolis; Walker, Evansville; Reamy, Whittaker, Ransohoff, Thrasher, Ricketts, Lichberg, Cincinnati; Murdoch, Sutton, Daly, Wood, Pittsburgh; Scott, Vance, Corlett, Baker, Cleveland; Woodbury, Hare, Philadelphia; Wyeth, New York; Wile, Connecticut. The subjects cover every department of medicine and surgery. The efforts of the profession in Louisville to handsomely entertain their coming guests are on a magnificent scale, and none who go will regret having done so. The ladies will be given a pleasant time, and it is to be hoped that a large number of them will be present. To add to the interest of the occasion the American Rhinogloical Association will meet at the same place the same week, viz.: October 6, 7, 8, 1890. The Secretary is Dr. R. S. Knode, Omaha, Nebraska.

The American Association of Obstetricians and Gynecologists.—Programme of the Annual Meeting, to be held in the Hall of the College of Physicians, Philadelphia, Pa., Tuesday, Wednesday, and Thursday, September 16, 17, and 18, 1890.

First Day.—Tuesday, September 16, 1890. Business Meeting at 9 o'clock A. M., for Fellows only. Morning Session, 10 o'clock. 1. Address of Welcome, by William F. Waugh, and Response; 2. Some Facts Relating to the Diagnosis and Treatment of Placenta Previa, Dr. James P. Boyd, Albany; 3. Adherent Placenta; its Causes and Management, Dr. Aug. P. Clarke, Cambridge; 4. Venesection in the Treatment of Puerperal Eclampsia, Dr. Thos. Lothrop, Buffalo; 5. The Relation of Albuminuria to Puerperal Eclampsia, Dr. Wm. S. Gardner, Baltimore. Afternoon Session, 3 o'clock. 6. Tincture of Iodine in Hyperemesis Gravidarum, Dr. Llewellyn Eliot, Washington; 7. Practical Teaching in Obstetrics in America, Dr. Geo. H. Rohé, Baltimore; 8. The Axis-Traction Forceps; its Place in Obstetrics, Dr. Joseph Hoffman, Philadelphia; 9. The Vectis; a Forgotten but Valuable Instrument, Dr. Wm. Wotkyns Seymour, Troy.

Second Day. — Wednesday, September 17, 1890. Morning Session, 10 o'clock. 10. A Novel Mode of Exit for an Ovarian Cyst; Report of a Case in which the Contents were Vomited after Perforation of the Stomach, Dr. Geo. R. Dean, Spartanburg; 11. The Surgical Treatment of Peritonitis; With a Report of Cases, Dr. Joseph Price, Philadelphia; 12. Some of the Difficulties Met with in Abdominal Surgery, as Illustrated by Cases Taken from Personal Records, Dr. A. Vander Veer, Albany; 13. Complications Following Laparotomy, Dr. Wm. H. Wathen, Louisville; 14. Annual Address of the President (12 o'clock M.), Dr. E. E. Montgomery, Philadelphia. Afternoon Session, 3 o'clock. 15. Ovarian and Ligamentous Cysts Coëxisting in the Same Patient; Operation; Death from Shock, Dr. Wm. Warren Potter, Buffalo; 16. The Elastic Ligature in the Extraperitoneal Treatment of the Pedicle, Dr. X. O. Werder, Pittsburgh; 17. Hydatids of the Broad Ligament; With Report of a Case, Dr. N. B. Carson, St. Louis; 18. Personal Experience with Gallstones and the Operation for their Relief, Dr. Wm. Wotkyns Seymour, Troy; 19. Report of a Case of Extirpation of Calculus from the Ureter by Combined Abdomino-Lumbar Section; Recovery, Dr. Rufus B. Hall, Cincinnati.

Third Day.—Thursday, September 18, 1890. Business Meeting, 9 o'clock A. M., for Fellows only. 20. Special Gymnastics in the Treatment of Diseases Peculiar to Women, Dr. John H. Kellogg, Battle Creek; 21. Report of Gynecological Cases Treated

with Electricity; With Remarks, Dr. Franklin Townsend, Albany; 22. Uterine Malposition and Disease as a Cause of Insanity, Dr. Geo. R. Shepherd, Hartford; 23. Infantile Vulvar Hemorrhage, Dr. Thos. E. McArdle, Washington. Afternoon Session, 3 o'clock. 24. The Treatment of Fibroid Tumors of the Uterus, Dr. L. S. McMurtry, Louisville; 25. A Further Discussion of Vaginal Hysterectomy, Dr. Chas. A. L. Reed, Cincinnati; 26. Presentation of Specimens; With Remarks on their Nature and Complications as Observed at the Operating Table, Dr. Joseph Price and Dr. E. E. Montgomery, Philadelphia.

NOTE.—Papers will be read by Drs. Myers, Marcy, and Branham, whose titles were offered too late for classification.

NEW PATENTS:—

PATENTS GRANTED SEPTEMBER 2, 1890

Ammonia-still	Stroh & Osius	Detroit, Mich.
Atomizer	G. Schlauch	Lancaster, Pa.
Making carbon tetrachloride	E. G. Scott	Port Sunlight, England.
Fumigator	L. Russell	Luling, Tex.
Insecticide	W. Mann	Fresno City, Cal.
Preserving compound	O. Williams	Milwaukee, Wis.
Vaginal tampon	C. C. Fredigke	Chicago, Ill.
Truss	Wells & Ewell	Rochester, Mich.
Veterinary surgical device	J. F. Van Ness	Gloversville, N. Y.

TRADE-MARKS REGISTERED SEPTEMBER 2, 1890.

Perfumery. (The words "Rhea Bouquet")	G. Mandelbaum & Co.	New York, N. Y.
Soporific. (The word "Somnal")	Eisner & Mendelson Co.	New York, N. Y.
Perfumery, toilet-waters, sachet-powders, tooth-powders, and smelling salts. (The words "Sweet Spray")	Ladd & Coffin	New York, N. Y.
Nerve foods, or remedies for nervous exhaustion. (The words "Peruvian Nerve Compound," with the word "Peruvian" extending upward at an angle in front of the word "Nerve")	Standard Medicine Co.	Boston, Mass.
Specific for Affections of the Throat, Chest and Lungs. (The words "Dr. Watson's New Specific," with the portrait of Dr. L. Watson)	Cumberledge, Garver & Deal	Carthage and Kansas City, Mo.

LABELS ISSUED SEPTEMBER 2, 1890.

"Follmer's Crystal Eye Medicine"	H. Follmer	Jersey City, N. J.
"Marshmallow Skin Soap"	The Diamond Laboratory Co.	Naugatuck, Conn.
"Cactus Balm Hair Grower"	J. W. Smith	Boston, Mass.
"Cactus Balm Skin Cure"	J. W. Smith	Boston, Mass.

PATENTS EXPIRING SEPTEMBER 2, 1890.

Hair wash	R. Travis	Elkton, Ky.
Medical compound	M. P. Munder	Baltimore, Md.
Medical compound	S. E. Paddock	Delaware, O.
Suppository mold	P. I. Spenzer	Cleveland, O.
Truss	J. F. Groves	Whitefield, Co. Ga.

—Charles J. Gooch, *Patent Attorney.*

LOCK BOX 76, WASHINGTON, D. C.

FOR the week ending, September 2, New York city reported 11 deaths from typhoid fever, 1 from scarlet fever, 10 from measles, and 16 from diphtheria.

TO CONTRIBUTORS AND CORRSEPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

INTERMENTS in Philadelphia, from August 30, to September 6, 1890:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess		2	Inflammation bladder	1	
Alcoholism	5		" kidneys	2	
Anæmia		1	" larynx		1
Apoplexy	11		" lungs	8	8
Bright's disease	12		" heart		1
Burns and scalds	1	4	" peritoneum	4	
Cancer	10		" pleura	1	
Casualties	10		" s. & bowels	4	7
Congestion of the brain		4	" prostrate gl.	1	
" " lungs	2		Inanition	1	14
" " liver	1		Jaundice	2	1
Cholera infantum		25	Leucocythemia	1	
" morbus	1	1	Locomotor ataxia	1	
Cirrhosis of the liver	2		Marasmus		29
Consumption of the lungs	37	5	Old age	7	
Convulsions	1	16	Obstruction of the bowels	2	
Croup		8	Paralysis	3	1
Cyanosis		2	Poisoning	1	
Debility	2	8	Rheumatism	1	1
Diarrhœa	2	4	Scrofula	1	
Diphtheria	1	3	Septicæmia		
Disease of the brain	1		Sore mouth		
Disease of the heart	14	2	Softening of the brain	1	
Drowned	2	1	Suffocation		
Dysentery	4	1	Suicide	1	
Dropsy	1	2	Syphilis	1	
Enlargement of the heart	1		Teething		3
Fatty degener. of the heart	1		Tumor	1	
Fever, scarlet		3	Uræmia	1	
" typhoid	19	6	Whooping-cough		5
Gangrene	2		Wounds, gun-shot		1
Inflammation brain	1	9			
" bronchi		6	Total	194	188

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from August 24, 1890, to September 6, 1890.

APPOINTMENT.

BAXTER, JEDEDIAH H., Colonel and Chief Medical Purveyor, to be Surgeon-General, with the rank of Brigadier-General, August 16, 1890, *vice* Moore, retired from active service. Headquarters of the Army, A. G. O., Washington, September 1, 1890.

Leave of absence for one month, to take effect September 15, 1890, is granted First Lieutenant Theodore F. De Witt, Assistant-Surgeon. S. O. 76, Headquarters, Department of Texas, San Antonio, Texas, Sept. 1, 1890.

Changes in the Medical Corps of the U. S. Navy for the week ending September 6, 1890.

WISE, J. C., Surgeon. Detached from Torpedo Station, and to the U. S. S. "Alliance."

FITZSIMONS, PAUL, Surgeon. Ordered to the Torpedo Station, Newport, R. I.

BRIGHT, GEORGE A., Surgeon. Detached from the U. S. S. "Constellation," and to Naval Academy.

OLCOTT, F. W., Assistant-Surgeon. Promoted to be Passed Assistant-Surgeon.

WENTWORH, A. R., Passed Assistant-Surgeon, requests to withdraw resignation. Granted.

CRAWFORD, M. H., Passed Assistant-Surgeon. Detached from the U. S. S. "Monongahela," and granted two months' leave of absence.

KEENEY, JAMES F., Assistant-Surgeon. Detached from the U. S. S. "Richmond," and granted two months leave of absence.

LOWNDES, CHAS. H. T., Assistant-Surgeon. Detached from Naval Academy, and ordered to the U. S. S. "Richmond."

HOEHLING, A. A., Medical Inspector. In addition to present duties, ordered as President of Medical Examining Board at Philadelphia, convened by Department order, June 9, 1890.

KENNEDY, R. M., Assistant-Surgeon. In addition to present duty, ordered as member of the above Board.

OGDEN, F. N., Passed Assistant-Surgeon. In addition to present duty, ordered as member of the above Board.

MCCLURG, WALTER A., Surgeon. Granted a month's leave of absence from September 1.

KERSHNER, EDWARD, Surgeon. Granted two weeks' leave of absence from September 1.

The Times and Register.

Vol. XXI, No. 12. NEW YORK AND PHILADELPHIA, SEPTEMBER 20, 1890. Whole No. 628.

PAGE

ORIGINAL ARTICLES.

MEDICAL TEACHING ABROAD. ITS ADVANTAGES TO AMERICAN GRADUATES. By Ernest Laplace, M.D. - - - - - - - - - 257
ARISTOL. By William F. Waugh, M.D. - - 258
SULFONAL. By W. DeLano Eastlake, M.D. 261
THE NECESSARY PEROXIDE OF HYDROGEN. By Robert T. Morris, M D. - - - - - - 264

EDITORIALS.

OUR STUDENTS' NUMBER. *Waugh.* - - - 265

PAGE

PHENACETINE. - - - - - - - - - - - - 266
Phenacetine. *Thomson.* - - - - - - - - - 264
Medical College Announcement for 1890–91. 268
Colleges that Admit Both Sexes. - - - - - 271
Colleges that Admit Only Colored Students. 271
Tabular View of the Regulations of the Royal Colleges of Physicians and Surgeons, and of the Society of Apothecaries of London. *Brit. Med. Journal* - - - - 272
Tabular View of the Regulations of the Medical Examining Bodies in Scotland. *Brit. Med Jour.* - - - - - - - - - - - 274

PAGE

Papoid in Gastric Catarrh. - - - - - - - 275

BOOK NOTICES.

A Dictionary of Practical Medicine. *Fowler.* 276
A Manual of the Practice of Medicine. *Taylor.* - - - - - - - - - - - - - - - 276
Wood's Medical and Surgical Monographs. 276
Physicians' Leisure Library. *Jacobi* - - - 276
A System of Oral Surgery. *Garretson* - - 276

NOTES AND ITEMS - - - - - - - xviii

Original Articles.

MEDICAL TEACHING ABROAD. ITS ADVANTAGES TO AMERICAN GRADUATES.

BY ERNEST LAPLACE, M.D.,
Professor of Pathology and Clinical Surgery in the Medico-Chirurgical College, Philadelphia.

NO one who has watched the rapid development of American medical education; the ample practical laboratory courses and hospital experience afforded the student eager after knowledge, will deny that the graduate of our best schools deserves the proud title which admits him to the ranks of the medical profession. That very consciousness of the gravity of the work he has undertaken, leavened with a true love of his profession, raises within him a desire to see and to learn, as far as his means will afford, all that can possibly bear upon his chosen profession before he embarks upon its practice; to see and meet the great masters, and gaze upon science at its fountain head, in another language, under other customs. It is then that knowledge gotten at the medical school is verily assimilated; then life and art become one.

He may see certain things done not as well as at home—his American heart then swells with just pride; but most probably his keen eye will not be long in observing the great thoroughness that pervades medical study and practice in Europe; the assiduity, patience and perseverance of investigators; the care, accuracy and deep learning of clinicians, and it then first dawns upon him that the great American *rush* through life, in medicine as well as in other avocations, must be tempered by that calm reflection, deep learning, and eager love of truth, which are the only foundations that will support the temple of medicine as erected by the Pasteurs, Kochs and Listers of the day.

Were this refining moral influence the only fruit of a post-graduate trip abroad, its value could not be overestimated, but from a more material and practical stand-point, no better step could be taken by a graduate, to perfect himself in general medical knowledge, or to adopt one of the specialties, than in devoting a reasonable length of time in the various European capitals, where the advantages for advanced medical teaching have been so systematized as to meet the requirements as well as the purse of almost any one. Let it be distinctly understood, therefore, that the graduate who goes abroad in search of medical knowledge must have either one of two objects in view. He desires to perfect himself generally on all the branches of medicine, or he wishes to devote his whole time and energy to the study of a special subject. This decision must be reached before leaving home, to make the most of the opportunities to be gotten in a limited time.

Generally speaking, Vienna is the center of post-graduate medical teaching abroad. The general hospital, with its thousands of beds, is the medical school as well; all the teaching by the professors and assistants being strictly clinical or practical laboratory work.

Connected with the hospital is the polyclinic, in which courses of six weeks' duration on the various special branches in medicine, are held from 8 A. M. to 8 P. M. A multitude of notices are to be seen on the board at the entrance of the hospital, from which a schedule may be formed by the student so as to occupy his whole time. Many courses are given on the same subject by different instructors, so as to benefit those who wish to devote themselves exclusively to a specialty.

Furthermore, the "Anglo-American Medical Society of Vienna," organized last year, is practically a club for the information and assistance of English-speaking students. This will be found of help for special information.

The brevity of these courses precludes that thoroughness which some students may seek; it is, therefore, recommended to devote a longer time under the private tutorship of one or more of the eminent specialists that abound in Vienna, both for clinical and laboratory work.

Berlin offers very nearly the same polyclinic advantages as Vienna, only each professor or docent is separated by a considerable distance from the other, and much valuable time is lost in the city travel; furthermore, the schedule does not admit of employing all the hours of the day, as in Vienna; one advantage is that, as a rule, the short courses are not as crowded as in Vienna. For special work of any kind, having a reasonable length of time to devote to it, Berlin is probably superior to any other city in Europe. Koch, Bergmann, Dubois-Reymond, Vir-

chow, Gerhardt, are names synonymous with all that is great in medicine. There is a wonderful gynecological clinic conducted by Olshausen, also one conducted by Martin. The pathological hygienic and physiological institutes are not surpassed anywhere.

Heidelberg, Greifswald, Göttingen also offer advantages for special study. Paris must also be visited. The Pasteur Institute presents an exceptional field for special work in biology. The great clinics of Verneuil, Péan, Tillaux, Potain, Dieulafoy require a careful visit. It has lately been announced that Paris will soon have a polyclinic established on the same system as that in Vienna. When this is realized, it will soon regain its former popularity as the place of study for American graduates. As it is, the eye clinics of De Wecker, Laudolt and Galezowski, and the laboratories of Cornil and Ranvier, are the chief attractions to the student. The Faculté de Medecine, granting no privileges to foreign graduates who desire to obtain a French diploma, but few Americans choose to spend the time and labor required to achieve that distinction. Considering the unlimited hospital facilities in Paris, we look anxiously to the near future when Americans will flock to the polyclinic of the gay capital as they do to-day to Vienna.

London has its attractions, but aside from exceptional cases, the American student finds himself satisfied with walking the various hospitals, and meeting the illustrious men of the day. Why this should be so to such an extent we are not prepared to say, except, perhaps, that the more foreign tone of continental life is more in accordance with one's idea of Europe.

It was not our purpose to give a full plan of medical study abroad, but simply to rouse those who can afford it to the necessity of a post-graduate course, seasoned with the refining and broadening effect of European travel. Each American graduate knows best what branches he wishes to study, and *how;* we hope we have convinced him of why he should go abroad, and, being there, told him *where* to direct his steps.

ARISTOL.

By WILLIAM F. WAUGH, M.D.

THE unpleasant odor of iodoform, and the failure of every means suggested to disguise it, has prompted a search for something which will replace this valuable agent. Naturally, the search has been mainly among compounds which, containing iodine, are nearly related to iodoform. Iodol has proved of some value, but a more promising combination is that of iodine and thymol, known as aristol, or dithymoldiodide. In this the proportion of iodine has been determined by Carius to be 45.8 per cent.

Aristol is insoluble in water or glycerin, slightly soluble in alcohol, and readily in ether. It is also quite soluble in oils; the solution being effected by rubbing; heat being avoided, which, as well as light, decompose aristol. It is non-irritant when dusted over the surface of an open wound or ulcer, and is not absorbed into the body, as the urine does not give the reaction of iodine while aristol is being used. I have noticed, however, that when applied to the ulcerated surface of a scirrhus, the starched clothes soiled by the discharge exhibited the characteristic blue coloration of iodine.

While aristol is as yet too recent an addition to our armamentarium to permit a positive conclusion as to its value, the trials already made are sufficient to indicate that we have in it an agent possessing remarkable properties. In my own practice I have the lolowing cases to report:

Endometritis.—A married lady, anemic and nervous, has had for months symptoms of corporeal endometritis; with tenderness of the uterus and left ovary, and soft, spongy, highly sensitive os uteri. Sexual intercourse has been impossible for months, on account of the great pain. Dysmenorrhœa, as a matter of course. A cotton wrapped applicator was dipped in glycerin and rolled in aristol powder; carried to the fundus uteri, and allowed to remain some minutes. Vaginal tampons prepared in the same manner were applied once daily; the intra-uterine applications being repeated twice a week. The next menstruation was painless; the tenderness steadily decreased with each treatment, and but little pain is now experienced upon intercourse. This is the result of less than one month's treatment.

Ulcerating carcinoma.—1Aady has had a mammary scirrhus removed several times, and at present the disease is beyond the reach of the knife; the tissues of the chest wall widely infiltrated and adherent, the cervical glands nodulated, and the central portions ulcerating. The débris was removed by poulticing, and aristol dusted thickly over the raw surface. Three days later the improvement in the aspect of the ulcer was so marked that we could hardly credit our eyes. After a week's treatment, granulations are springing up over the sore and it looks as if it were about to heal over. Should this improvement continue, I shall take means to introduce the aristol into the deeper tissues of the carcinoma, by hypodermic injection, and apply it over the surface by plaster or inunction.

Gleet.—A case of gleet of twenty years' standing. Several constrictions of the urethra exist; some of them very tight. There is also some impairment of sexual ability, emissions occurring before complete erection. The urethral mucous membrane is exceedingly sensitive; the passage of a bougie causing great pain, and being followed by an attack of urethritis so acute that I had some difficulty in convincing him that the bougie had not communicated a gonorrhœa to him.

Aristol was mixed with liquid and solid vaseline to make the consistency that of thick cream. This was introduced into the urethra in very small quantities. The pain and tenderness were at once relieved, the discharge ceased within a week; and to-day, the first time in twenty years, there is no sign remaining of the gleet. Whether there will be a corresponding improvement in the impotence it is too soon to say; but the patient believes that this is the case.

These are the only cases upon which I can report at present; but as aristol is now being tried in a variety of cases at my clinic, I shall make the result public at some future time.

Prof. Shoemaker has found aristol as efficient in psoriasis as chrysarobin, while the former does not stain the skin and give rise to conjunctivitis like the latter. In chronic leg ulcers, simple or specific, aristol is even more efficient than iodoform; relieving the pain and tenderness as quickly, and promoting cicatrization much more.

Dr. W. C. Wile states that in the general details of surgical practice he has found that aristol may be substituted for iodoform with advantage. So far as the limited experience of a few weeks goes, I can confirm this statement.

Eichhoff (*N. E. Med. Monthly*) gives the history of nine cases in which he employed aristol, with the following results:

1. *Varicose ulcer and parasitic eczema.*—Ten per cent. ointment of aristol in vaseline (the aristol first dissolved in olive oil) applied to the affected parts, and covered with gutta perchsa. Cured in one week.

2. *Lupus exulcerosus facieci.*—An old case, with great destruction of the soft tissues. Aristol was applied in the same strength as in the preceding case. Though a very large surface was covered with the ointment, there was no absorption, as shown by testing the urine for iodine. In four weeks the diseased surface was almost entirely healed. The combination of a germicidal action and the promotion of new tissue growth was beautifully exemplified in this case.

3. *Soft chancre.*—The aristol seemed to stay the progress of the disease, but proved inferior to iodoform.

4. *Psoriasis vulgaris.*—Ten per cent. aristol ointment applied. It proved a little slower than chrysarobin, but the disease was almost entirely well in ten days.

5–6. *Ringworm.*—Head shaved, washed with soap twice daily; five per cent. aristol ointment applied. Cured in ten days.

7. *Sluggish ulcers, following scabies.*—Five per cent. aristol ointment cured in five days.

8. *Seborrhoeic eczema.*—Previous treatment proved ineffectual, but a three per cent. aristol ointment cured in six days.

9. *Syphilitic ulcers, congenital.*—Sublimate dressing did but little good, and a ten per cent. aristol ointment was substituted. Healing went on rapidly, and in eight days the smaller ulcers had closed and the larger were almost well.

Brocq recently showed a case of epithelial cancer of long standing, in which the ulceration had almost entirely cicatrized under the use of aristol. The difficulty of securing such results in cancer indicates the importance of giving aristol a thorough trial in this disease.

Schuster makes a favorable report on the use of aristol in naso-pharyngeal syphilis. The drug was applied in fine powder, by a blower.

Schirren used aristol in ten cases of psoriasis, and confirms the reports already mentioned.

Lasser also confirms its value in psoriasis, but did not obtain benefit in lupus vulgaris.

Neisser gave aristol internally without producing the slightest effect. His results in psoriasis were less favorable than Eichhoff's; though he regards aristol as preferable to chrysarobin and pyrogallic acid. Gonococci were not affected by it. Several varieties of ulcers healed favorably under aristol. Eczema showed some improvement; while with lupus and soft chancre it had no effect.

Swiecicki,[1] of Posen, first published results obtained with aristol in gynecological practice. He reports twenty cases treated with aristol. In five the beneficial action was most marked. The cases were:

Endometritis. Uterus very slightly sensitive to pressure; secretion much diminished. Portio vaginalis normal. Tampons soaked in 10 per cent. solution in oil in the vagina, small rods containing fifteen grains of aristol, introduced into the uterus.

Endometritis, with erosions and hyperplasia of the cervix. Good result in seventeen days. As above.

Parametritis. The exudation much less, in four weeks can scarcely be felt. Introduction of aristol tampons as far as the portio vaginalis, inunction of 10 per cent. ointment over the abdomen, and aristol suppositories.

Fissure of the Cervix. Healing by first intention in eight days. The wound was dusted with aristol powder.

Eczema Vulvæ. Satisfactory. 10 per cent. ointment.

In none of the twenty cases was the slightest ill effect observed, and although somewhat large quantities of aristol were employed, no trace of toxic action was observed.

Hughes[1] has investigated the action of aristol in Seifert's Clinic for Diseases of the Nose and Throat, in Würzburg. He has found aristol of service in those conditions of the mucous membrane in which the secretion is much diminished in amount, or where it tends to undergo decomposition.

The first group comprises the cases usually described as rhinitis sicca, so often associated with pharyngitis and laryngitis sicca; aristol has here a most beneficial action on the secretion, and does not produce the slightest irritation.

The second group comprises those cases in which there is an atrophy of the mucous membrane, especially that covering the lower and middle turbinated bone, without decomposition of the secretion. In addition, Hughes reports several other states of the nose and larynx in which aristol has been found of service. The cases recorded are the following:

Rhino-pharyngitis sicca (nine cases). Secretion appeared again, not only in the nose, but also in the naso-pharynx. Insufflation of aristol powder.

Rhinitis atrophica (three cases). Free secretion from the nose, the mucous membrane moist and shining, the general condition much improved.

Chron. Conjunctivitis; dryness of the nose (one case). All previous treatment had been without result, the insufflation with aristol had a decidedly beneficial action.

Rhinitis atrophica: ozœna fœtida (six cases). Fœtor decidedly diminished, condition generally improved, the crusts came away easily.

Specific ozœna with perforation of the septum (two cases). Most beneficial action. Insufflation of powder.

Laryngitis sicca (two cases). The previously hoarse voice became quite clear after one brushing with silver nitrate, 1 per cent. solution, and insufflation of aristol for two days. The aristol did not produce the slightest irritation.

Laryngitis syphilitica. The insufflation was borne very well.

Aristol has a peculiar action in promoting the secretion of mucous surfaces. After operative interference in the nose, its use seems advisable, especially as a substitute for iodoform. Even when freely and frequently used, there need be no fear of toxic action.

Loewenstein[2] reports four cases of ozœna, three simple, one syphilitic, in which he has used aristol. In order to test the action of the drug, other adjuvant measures were not employed, simply douches of salt solution or water alone being used. The cases are:

Ozœna simplex (three cases). Fœtor disappeared in a few days, crust formation much less. Headaches disappear. Insufflation of powder.

Ozœna siphilitica (one case). Ulcers healed, formation of crust ceased, as also the bleeding, fœtor disappeared. Insufflation of powder 10 per cent. solution in collodion flexile painted over the ulcers.

In all the cases under the use of aristol alone, the formation of crusts and the fœtor ceased, in a time in which, by other means of treatment, it is rare to

[1] Cent. f. Med. Wissensch. 1890, No. 2.

[1] Wiener Klin. Wochenschrift, 1890, No. 18.
[2] Int. Klin. Rundschau, 1890, No. 20.

see any improvement. The easy application of the fine powder is also worth notice, while it covers the surface with an impermeable coat. The complete absence of any toxic action, and the power of destroying the fœtor, are also distinctly noteworthy.

Gaudin[1] reports favorably on the new remedy, which he distinctly prefers to iodoform, the general properties of which at least it has, if, indeed, it does not far exceed it; in its want of odor, harmlessness, unirritant action, and, above all, its marked power in bringing about the cicatrization of granulations. The cases reported by Gaudin are:

Psoriasis vulgaris (four cases). The patches soon disappeared, healing without any irritation. In one case in which the ordinary remedies failed to cure, aristol was used with good result. Ten per cent. solution in flexile collodion.

Varicose ulcers on the legs (two cases), in one also eczema. Iodoform and empl. hydrarg. biniodidi, which were used for purposes of comparison, had by no means such a rapid action as aristol. Aristol as powder.

Chancre on the lip and on the penis (two cases). Rapid healing; in three days the surface was dry and cicatrization had commenced. Aristol powder.

Eczema on a hairy surface (nape of neck and axilla). Itching ceased at once; after eight brushings the patient was discharged cured. Ten per cent. solution in ether.

Eczema on a hairy surface in a syphilitic patient. Cure after ten dressings. Ten per cent. solution in ether.

Dr. Soler y Buscalla[2] records the remarkable healing effect of aristol in venereal sores of various kinds and buboes. The pure powder was used in all cases, that the action of aristol *per se* might be observed. Special report is given of a syphilitic sore on the dorsum of the penis, and a phagadenic ulcer in which iodoform produced violent irritative symptoms; after a few dressing with aristol powder cicatrization commenced. The cases under treatment comprised hard chancre, simple ulcer, simple chancer on the penis, ulceration of the vulva, and several cases of suppurating bubo. In all cases healing occurred quickly, and aristol was repeatedly used with success in cases in which iodoform had failed. Dr. Soler y Buscalla describes, from the results of his own observations, aristol as a most valuable addition to our materia medica.

Rohrer reports his experience with aristol in the "Archiv. Internac. de Laringologia." He used aristol first of all in the acute and subacute suppurative affections of the middle ear, which occurred so frequently associated with influenza. After washing and drying the ear with cotton wool, aristol was insufflated over the external meatus and into the cavum tympani; a tampon of cotton wool was then introduced, to be removed by the patient every hour if the secretion was profuse; at the same time, in patients suffering from subacute or chronic rhinitis or pharyngitis, aristol was insufflated in the nose or pharynx respectively. The secretion rapidly diminished, the mucous membrane of the tympanic cavity became smooth, the swelling disappeared, and the perforations healed. The cases of otitis externa recovered very rapidly under treatment with aristol. The result was also very good in the cases of rhinitis, and different forms of ozœna, the treatment consisting in syringing with normal salt solution and insufflation of aristol powder. More than twenty cases were treated with aristol; in no single case was the least unpleasantness observed, or the slightest trace of toxic action. The action of aristol far surpasses that of the well-known remedies, more especially boracic acid, iodoform, and iodol. It is especially noteworthy that cases which only showed tardy signs of improvement under the use of the above-mentioned, were healed in a few days under aristol treatment.

Rosenthal[1] reported to the Dermatological Society of Berlin a case of lupus, the ulcerated surface of which was very beneficially influenced by the use of aristol (the drug had only been used a fortnight). Rosenthal showed to the same society another patient who had suffered for eighteen years from lupus erythematosus. Both cheeks were covered with seborrhoic crusts; the nose was implicated, and at the junction of the bony and cartilaginous portions there were two deep depressions in the skin. The ears were implicated like the nose, and the lobule had disappeared. The general butterfly-like form of the diseased surface was most marked.

The diseased surface was then cauterized with the Paquelin thermo-cautery, and at once dressed with aristol ointment, and the result has been most satisfactory.

Gaudin[2] read, on the 15th of May, 1890, before the Société de Médecine pratique de Paris, a paper in which he mentions, in addition to the ten cases already recorded, three others in which he has used aristol with very good results. These are, shortly:

Resection of elbow for malignant growth. Iodoform had produced irritative symptoms; under the use of aristol these disappeared, and the edges of the wound united without any suppuration.

Epithelioma of the uterus filling the vagina, and with a most fœtid odor. Iodoform could not be tolerated; cotton tampons dusted with aristol powder soon corrected the fœtid discharge, and portions of the growth were also detached.

Endometritis following abortion, sanious purulent discharge, uterus tense and bleeding on the slightest manipulation. After washing with warm water, bougies of ol. theobrom. with aristol were introduced: all the symptoms rapidly disappeared.

Guerra y Estape publishes in the "Revista de Enfermedades de la Infancia" his experience of the use of aristol in children's diseases. Although the odor alone is enough to deter us in the use of iodoform, we have in addition the toxic and irritative properties which produce, not unfrequently in adults and more frequently in the naturally weaker and less resistent persons of children, most unpleasant results. Moreover, the smell of iodoform is to many children unbearable, and at times even irritating. In private practice, too, a point of some importance is that the public—at least here—attach a very ominous significance to the smell of iodoform.

In all twenty cases were treated, and all with very good result. Three are recorded in more detail, viz.:

Extensive ulceration over the parotid gland in a lymphatic child of two and a half years. In seven days the ulcer had healed. The treatment consisted in daily washing with tepid water and dusting with aristol powder.

Chronic coryza, the nares blocked with crusts, in a scrofulous child of three years. The interior of the nose was cleansed with boiled water. Aristol powder was then insufflated. Healed in six days.

[1] Jour. de Derm. et Syph.
[2] Revista de Cienc. Méd. de Barcelona, No. 8, 1890.

[1] *Deut. Med. Zeitung*, No. 21, 1890.
[2] *Jour. de Méd. de Paris*, No. 23, 1890.

Ulceration on the thorax over the ribs, five cm. in diameter, edges livid and covered with pus; in a weak, lymphatic child. Washed with boiled water, and dusted with aristol powder twice daily; the suppuration ceased in twenty-four hours, and cicatrization soon commenced.

In order to test the action of the drug, he used only sterilized water as a cleansing agent, without the addition of any antiseptic. Aristol encourages the cicatrization of wounds and ulcers; ill bye-effects were not observed.

Eichhoff publishes in the *Deutsche Medicin. Wohenshrift*, on account of his further experience with the remedy, which completely confirms his previous provisional communication. Eichhoff has not limited his obserations to the cases described in his first paper, but has also used the drug in other diseases.

The result with favus, soft chancre, and acute gonorrhœa was negative; but it is worthy of note that patients suffering from the latter, in which 5 per cent. aristol oil was used as an injection seemingly without effect, recovered much more rapidly under other treatment than patients treated in a like manner in which aristol was not used. The other cases are as follows:

Mycosis tonsurans capillit, (eleven cases). Of these, nine were cured in from six to eight weeks under the use of 10 per cent. aristol ointment, none were epilated.

Sycosis parasitaria barbæ resp. montis veneris (eight cases). All the cases were cured in from two to four weeks under the use of 5 per cent. aristol ointment, or 5 per cent. solution of aristol in collodion flexile.

Eczema. Face, arm, scrotum, finger, forehead, (six cases). In five cases the cure was complete in from seven to fourteen days. On extensive surfaces 5 to 10 per cent. ointment was used, on smaller patches 10 per cent. solution in collodion flexile containing 10 per cent. ol. ricini.

Lupus (nine cases). Five Lupus maculosus, four lupus exulcerans. The surface in the former was caused to ulcerate by erasion with the sharp spoon or cauterization with Paquelin, in the whole nine cases cicatrization rapidly proceeded. In about two months after treatment, all the cases were seen, and in none had any relapse occurred.

Scrofuloderma (five cases). The flabby granulations were removed, and the whole five cases healed rapidly.

Gangrene of the skin following frost-bite: chronic ulcer of the leg. Cicatrized rapidly under the use of 10 per cent. aristol ointment.

Ulcerated gummata in tertiary syphilis. According to the sight of the ulcers, ointment, powder, or ethereal solution was employed. All the cases healed rapidly under this local treatment. Aristol surpasses all other remedies in the rapidity and completeness with which it produces cicatrization in tertiary syphilis.

Bubo, after soft chancre. Rapid healing with 5 per cent. ointment.

Gangrenous bubo. Granulation and rapid cicatrization under use of aristol powder.

Urethritis chronica (puellæ publ.) (nine cases). In six cases rapid recovery followed the use of bougies of ol. theobrom. with aristol.

Psoriasis vulgaris (two cases). Cured in fourteen days with ten per cent. ointment and 10 per cent. solution in collodion flexile respectively.

Eczema crustatum and moist condylomata round the anus were rapidly cured; a case of ozœma simplex lost its penetrating odor at once after a few insufflations of aristol powder.

A case of lupus erythematosus implicating the face, feet, and hands, and of years' duration, was rapidly cured by the drug. The surface was first destroyed, and the ulcers so produced treated with 10 per cent. aristol ointment. In ten days the patient was healed, with a clean, smooth, white cicatrix.

Pollack,[1] of Prague, has used aristol with advantage in place of other iodine compounds in hastening absorption. He has treated with it cases of epididymitis, parametritis, typhilitis, inflamed tubercular lymphatic glands in the neck, and enlarged thyroid.

Hypertrophy of thyroid. All treatment so far adopted had been without result. At first a soap mixture, containing 1 per cent. of aristol dissolved in a mixture of alcohol and ether, was used; later 10 per cent. ointment in vaseline. The enlargement was distinctly less in fourteen days, and the neck soon became quite normal in size.

Epididymitis (three cases). When the use of 10 per cent. aristol ointment was commenced the epididymus was more than twice as large as the healthy one. In four days there was a distinct improvement, and after ten days there was no trace of any enlargement, nor was there any pain.

Parametritis (three cases). There was a distinct improvement after using 5 per cent. ointment for two days, and in four days the tumor was scarcely to be felt.

Inflamed tubercular lymphatic glands (four cases). Five per cent. aristol in vaseline was used. There was a distinct diminution in the size of the glands. In all the other cases, and also in a case of typhlitis, the action of the drug was satisfactory; as also in a case of ulcus cruris and blenorrhoic ulceration of the nose.

I may here remark that while authors differ as to their estimate of the value of this remedy, there has been no report that has come to my notice in which the writer had not found the aristol of some benefit, and in some respects superior to the remedies previously employed. This can scarcely be said of any other newly introduced drug.

SULFONAL.

By W. DeLANO EASTLAKE, M.D.,
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OF late years a large number of new drugs have found their way into the practice of medicine which, under the light of chemical research, have faded away into obscurity. Only a few have become firmly established and have fulfilled their requirements. The hypnotics have, perhaps, received the largest additions to their ranks; and a vast amount of experimenting upon sleepless sufferers has been carried on, to the edification of the physician, and at the expense of the patient's comfort. One by one these newer drugs, with their promising titles, have been abandoned, either on account of their inefficiency, or on account of the alarming accompanying or after-symptoms then produced. Among the few that have stood the severest tests sulfonal is foremost. Although the subject of numerous experiments, sulfonal must still be considered in its infancy; and, while personal experience is always the best teacher, a careful review of the results of the most important papers on sulfonal cannot fail to be of practical value to the busy practitioner, who neither has time to

[1] *Ther. Monatschefte*, 1890, No. 7.

devote himself to the study of any one drug, nor to read even a tithe of what is written about it.

Sulfonal was discovered by Prof. E. Baumann, of the Freiburg University, Germany. It is a whitish, crystalline substance, belonging to the disulfones, and has the formula

$$(CH_3)_2=C=(C_2H_2SO_2)_2,$$

and its complete name is diæthylsulfondimethylmethan. Sulfonal has neither odor nor taste; it is but very slightly soluble in cold water, more so in warm water, and easily soluble in alcohol, ether, etc.

Among the earliest researches with the drug are those of Prof. A. Kast, of Freiburg, who reported his results in an article in the *Berliner Klinische Wochenschrift*, 1888, No. 16. Kast's first experiments were made upon dogs, and it became evident that the drug exerted decided physiological effects upon the nerve centers and cerebral cortex, and was apparently harmless, even when administered in relatively large doses. Numerous experiments were also made with the drug upon healthy human subjects, and it was found that it neither acted as a narcotic nor intoxicant, and did not stupefy healthy persons who had no desire to sleep. If, however, the person was actually tired, and in cases where a desire for sleep existed which could not be satisfied, sulfonal increased the somnolency until sleep occurred. After these preliminary investigations, Kast proceeded to test the value of sulfonal by using it extensively upon the patients in Dr. Bäumler's wards in the University Hospital of Freiburg. It was given for sleeplessness from varied causes, such as febrile conditions, old age, insanity, nervousness, and organic diseases of the nervous or circulatory systems. The results were uniformly satisfactory. The dose required ranged from fifteen to forty-five grains, and sleep occurred within thirty minutes to two hours after the exhibition of the drug. The sleep thus produced would last from five to eight hours. Upon waking, the patients felt refreshed, and no disagreeable symptoms were noted. According to Kast's experiences with sulfonal, both in animals as well as human subjects, the drug has no unfavorable effect upon the heart or circulation, even when administered in full doses.

Several months later, Kast reported additional experiences with the drug in the *Therapeutische Monatshefte*. Various experiments showed that the best methods for the administration of sulfonal were as follows: The drug should be finely powdered, and then mixed with some solid food, or, better still, dissolved in a bowl of hot soup, a cup of tea, coffee, milk, or broth. This should be taken early in the evening—between 7 and 8 o'clock—or at supper. In this article Kast calls special attention to the value of the drug in the insomnia and delirium of typhoid fever.

Regarding the value of sulfonal as compared with other of the newer hypnotics, it seems that it gives better and more reliable results, when given in moderate doses, than amylene-hydrate or paraldehyde in maximum doses.[1] Chloral produces sleep more rapidly than sulfonal, but the sleep produced by the latter drug is more lasting. It has a decided advantage over the majority of hypnotics by being tasteless and odorless.

Kast's excellent results soon prompted other physicians and clinicians to try the drug, and in a little time the German medical journals were teeming with interesting and instructive articles on sulfonal. Countless cases were reported, the results of searching experiments recorded, and a vast amount of clinical experience presented. Any drug that has emerged from such a fierce battle with science and still holds its place among the foremost remedies in medicine, surely deserves not only careful consideration, but personal trial. True, sulfonal did not escape without a few scars. Several cases were reported in which the drug failed, and failed repeatedly, and others in which it was not well borne; but in the face of the overwhelming evidence in its favor, these cases have but little weight. Still, they should by no means be overlooked. In a case of phthisis reported by Dr. Carl Oestreicher in the *Berliner Klin. Wochenschrift*, a dose of forty five grains of sulfonal, while producing sleep, was followed by general weakness and malaise, which lasted the entire day. In another case, reported by the same observer, similar lassitude was observed on the day following the exhibition of the drug. Dr. Oestreicher's report includes one hundred and twenty-eight observations, and in all of these, with the above exceptions, the drug's action was entirely satisfactory, and all sequelæ absent.

One of the most careful reports of German investigators was that of Dr. Joseph Franz, which was published in the Transactions of the *Würzburger Physikalischen Gesellschaft*. Two hundred and sixty separate tests, upon eighty-two patients, were made. The first group comprised only cases of purely nervous sleeplessness. Sulfonal was administered eighty-two times. In seventy-eight instances excellent results were obtained. Only in one patient did the drug fail to produce sleep, and this was a phthisical subject accustomed to morphine. In two cases the hypnotic effect was delayed until the following morning. Franz found the drug useful in treating a case of morphine habit.

The second group of patients consisted of patients in whom the insomnia was caused by pain; in such the drug was used one hundred and seventy-eight times. In this class of cases sulfonal proved less reliable, although in only five cases was there complete failure in producing sleep. It was found, however, that in the majority of cases the intensity of the pain certainly did retard the hypnotic action of the drug, although not able to overcome it. The drug is, therefore, chiefly useful as a hypnotic and not as an anæsthetic or anodyne, as morphine or chloral. In the majority of cases Franz exhibited fifteen-grain doses, and found these all-sufficient.

In Italy, Dr. G. Algeri investigated the drug's action at the Asylum for Insane Criminals at Ambrogiana.[1] He used sulfonal in acute mania, imbecility, melancholia, dementia, epilepsy, acute epilepsy, etc., and almost without exception has found it to be prompt and certain in its action. True, the dose required to produce sleep varied greatly—in some cases as much as sixty grains being found necessary, while in others fifteen grains had the desired effect. Yet, even the largest doses produced no unpleasant accompanying or after-effects other than a slight drowsiness, which continued during the day following the drug's exhibition. While strongly recommending sulfonal in the treatment of insomnia in the insane, Algeri adds a word of caution in regard to the necessity of a careful selection of the proper doses in each individual case.

Coming to a review of the observation of American physicians, we find that those of Dr. Henry Wether-

[1] Dr. G. Rabas reported two hundred and twenty cases treated with sulfonal, in *Berl. Klin. Wochenschrift.*

[1] *Riforma Medica.*

ill, of the Pennsylvania Hospital for the Insane, which were reported in the *Medical and Surgical Reporter*, October 13, 1888, were among the first, and were also among the most complete. Briefly summarized, Dr. Wetherill used sulfonal two hundred and thirty times in eight individuals, with the following results:

An excellent effect, namely, continuous sleep, lasting from five and a half to nine hours, in one hundred and ninety-six instances, or 86 per cent.; a fairly good effect, namely, continuous sleep, lasting from four to five hours, in fifteen instances; an imperfect effect, namely, sleep lasting only two to three and a half hours in nine instances; and no hypnotic action in ten instances. The average dose employed was fifteen grains. In no instance was the administration of the drug followed by any unpleasant effects whatsoever, the sole physiological action being sleep, usually restful, refreshing, and prolonged. There was no appreciable effect upon either the pulse, temperature, respiration, skin, kidneys, or pupils.

At the same time, Dr. B. Sachs, of New York, investigated the drug's value,, and reported the results of his observations in the *Medical Record*, October 6, 1888. His results were not uniformly as satisfactory as those of Dr. Wetherill. He used the drug repeatedly in fifteen different patients. In two individuals the drug signally failed to produce any amelioration of the insomnia; in three cases six hours' sleep was procured; in two, five hours; in one case never more than three hours' sleep was secured, and this was followed during the next day by symptoms of dizziness and heavy-headedness. In the remainder of cases the drug afforded a good night's rest. The dose employed was thirty grains.

Sachs concluded that sulfonal is valuable in functional (neurasthenic) insomnia, and that it appears to justify the claim of its discoverer, namely, that it restores the natural desire for sleep. He found that it was easily tolerated by the stomach; that it did not produce headache unless given in doses of forty-five grains, or over; that it had no effect upon the circulation, and could be given in cases of fatty heart, and apparently in fever; in all of which respects it appeared to be superior to other hypnotics. From his experience, however, sulfonal appeared to have very slight or no narcotic virtues, and with some patients seemed to lose its effect if frequently administered.

The *American Journal of Insanity*, April, 1889, contained a careful report of eighteen cases in which sulfonal had been used. The writer, Dr. Wm. Mabon, of the State Lunatic Asylum, Utica, N. Y., used the drug in various forms of melancholia, dementia, mania—both acute and chronic, periodic insanity, and depression. Altogether, the drug was administered one hundred and nineteen times on one hundred and fourteen nights, as follows: In fifteen-grain doses, twenty six times; in thirty-grain doses, eighty-one times; in forty-five grain doses, nine times; and, finally, three times in sixty-grain doses. On eighty-three nights, sleep was produced which continued for six hours or more; on twenty nights, from three to six hours, and on eleven nights, less than three hours. The sleep thus produced was natural on ninety-seven nights, and restless and broken on seventeen. In two cases the drug failed to give satisfactory results. The time required to produce sleep was, on an average, one hour and a quarter. In one case a marked sedative action of the drug was manifest. The only unpleasant after-effect was a slight somnolence in two or three instances. In the class of cases observed, fifteen-grain doses seemed insufficient, but thirty-grain doses usually resulted in producing refreshing sleep. Sulfonal was found to be most efficient when administered in hot milk or gruel. In comparison with other hypnotics used in the same cases, it was evident that the sleep produced by sulfonal was calmer, longer, and more refreshing than that produced by any other hypnotic.

The innocuousness of sulfonal is ably demonstrated by the report of a case occurring in the practice of Dr. W. C. Wile. The case was reported to the Section of Diseases of Children, of the American Medical Association, at its last meeting, held at Nashville, in May, 1890, and was subsequently published in the *New England Medical Journal*, July, 1890. The case was that of a child, one and a half years old, who was given sixty grains of sulfonal by mistake. The infant slept continuously for twenty-four hours, the respiration and pulse being normal, and the temperature very slightly elevated. Upon awakening, it cried for food.

Dr. Wile has used sulfonal largely in the diseases of children, and has never observed ill effects arising from its employment. He recommends it most highly in the irritability, sleeplessness, and convulsions accompanying. "Given in the proper dose," he says, "and according to the age of the patient, it will quiet the irritability of teething; prevent, oftentimes, convulsions; aid in controlling the same; relieve the nervous excitement, and produce peaceful sleep." He has found that it does not constipate, leaves no sequelæ; does not depress the system, nor impair the appetite. In fact, it is accompanied by none of those unpleasant symptoms which are almost sure to accompany the use of opium, chloral, or the bromides.

One of the most able among the recent papers on sulfonal was that read before the American Medical Association, at its last meeting, by Dr. Henry M. Field, of Dartmouth College. From practical experience, he expresses the belief that sulfonal is the only pure and efficient soporific we now possess. According to his experience, age, or organic disease —which, when other hypnotics are used, must be carefully considered—need not be taken into consideration when sulfonal is employed, other than a careful selection of the size of the dose. Dr. Field has been unable to find any fatal case as resulting from the use of sulfonal. Idiosyncrasy is occasionally met with, and is the chief obstacle to the entire success of the drug. Dr. Field ventures the prediction that so many grains of sulfonal will buy so many hours' sleep. This, we think, is scarcely confirmed by the experiences of other clinicians. Dr. Field claims that so large a dose as fifteen grains is very rarely required in continuous administration. A patient who has taken such an initial dose for a night or two, and thus received a full impression, will subsequently require only twelve or ten grains, in order to obtain similar action. Again, Dr. Field has found that the drug may be continued for several weeks without any increase of the dose being necessary. Regarding the method of exhibition, Dr. Field favors that of simply dusting the powder on the tongue and washed down with water; or, it may be given in capsules if a small dose is employed.

It has not been the intention of the writer of this paper to indite an eulogy of this drug, but to present to the profession a truthful picture of its value, as set forth by clinical experience. Many papers, the tenor of which has made them appear to be the out-pourings of a blind admiration, have been excluded from

this review. Indeed, we have searched rather for adverse criticisms of the drug rather than complimentary.

To draw conclusions would, indeed, seem to be an almost superfluous task. The remarkable uniformity of the results obtained by clinicians, both here and abroad, and the almost unexceptional success obtained with the drug, speaks for itself.

Is sulfonal the ideal hypnotic? No! but surely its failures are few; and until we find that "Tree of Life, the leaves of which are for the healing of the Nations," we must not expect to discover panaceas, and must be content in seeing sulfonal permanently established as one of the most successful and reliable remedies in the field of therapeutics.

THE NECESSARY PEROXIDE OF HYDROGEN.[1]

By ROBERT T. MORRIS, M.D.,
OF NEW YORK.

STOP suppuration! That is the duty that is imposed upon us when we fail to prevent suppuration.

As the ferret hunts the rat, so does peroxide of hydrogen follow pus to its narrowest hiding place, and the pyogenic and other microörganisms are as dead as the rat that the ferret catches, when the peroxide is through with them. Peroxide of hydrogen H_2O_2 in the strong 15-volume solution is almost as harmless as water, and yet, according to the testimony of Gifford, it kills anthrax spores in a few minutes.

For preventing suppuration we have bichloride of mercury, hydronaphthol, carbolic acid, and many other antiseptics, but for stopping it abruptly and for sterilizing a suppurating wound we have only one antiseptic that is generally efficient, so far as I know, and that is the strong peroxide of hydrogen. Therefore I have qualified it, not as "good," not as "useful," but as "necessary."

In abscess of the brain, where we could not thoroughly wash the pus out of tortuous canals without injuring the tissues, the H_2O_2, injected at a superficial point, will follow the pus, and throw it out, too, in a foaming mixture. It is best to inject a small quantity, wait until foaming ceases, and repeat injections until the last one fails to bubble. Then we know that the pus cavity is chemically clean, as far as live microbes are concerned.

In appendicitis, we can open the abscess, inject peroxide of hydrogen, and so thoroughly sterilize the pus cavity that we need not fear infection of the general peritoneal cavity if we wish to separate intestinal adhesions and remove the appendix vermiformis. Many a patient, who is now dead, could have been saved if peroxide of hydrogen had been thus used when he had appendicitis.

The single means at our disposal allows us to open the most extensive psoas abscess without dread of septic infection following.

In some cases of purulent conjunctivitis we can build a little wall of wax about the eye, destroy all pus with peroxide of hydrogen and cut the suppuration short. Give the patient ether if the H_2O_2 causes too much smarting. It is only in the eye, in the nose and in the urethra that peroxide of hydrogen will need to be preceded by cocaine (or ether) for the purpose of quieting the smarting, for it is elsewhere as bland as water.

It is possible to open a large abscess of the breast, wash it out with H_2O_2, and have recovery ensue under one antiseptic dressing, without the formation of another drop of pus.

Where cellular tissues are breaking down, and in old sinuses, we are obliged to make repeated applications of the H_2O_2 for many days, and in such cases I usually follow it with balsam of Peru, for balsam of Peru, either in fluid form or used with sterilized oakum, is a most thorough encourager of granulation.

If we apply H_2O_2 on a probang to diphtheritic membranes at intervals of a few moments, they swell up like whipped cream and come away easily, leaving a clean surface. The fluid can be snuffed up into the nose, and will render a fetid ozæna odorless.

It is unnecessary for me to speak of further indications for its use, because wherever there is pus we should use peroxide of hydrogen. We are all familiar with the old law, "*Ubi pus, ibi evacua*," and I would change it to read, "*Ubi pus, ibi evacua, ibi hydrogenum peroxidum infunde.*" That is the rule. The exceptions which prove the rule are easily appreciated when we have them to deal with.

Peroxide of hydrogen is an unstable compound, and becomes weaker as oxygen is given off, but Marchand's 15-volume solution will retain active germicidal powers for many months, if kept tightly corked in a cold place. The price of this manufacturer's preparation is about 75 cents per lb., and it can be obtained from any large drug house in this country. When using the H_2O_2 it should not be allowed to come into contact with metals if we wish to preserve its strength, as oxygen is then given off too rapidly.

H_2O_2 must be used with caution about the hair if the color of the hair is a matter of importance to the patient, for this drug, under an alias, is the golden hair bleach of the *nymph's dispare*, and a dark-haired man with a canary-colored mustache is a stirring object.

[1] Read in the Section of Surgery and Anatomy, at the Forty-first Annual Meeting of the American Medical Association, held at Nashville, Tenn., May, 1890.

PHENACETINE.

THOMSON[1] says: In any given case of nerve pain where one might suspect a weak or fatty heart, phenacetine is to be preferred to antifebrine. It does not seem to act quite so surely as the latter, but after using three and a half ounces of it, I much prefer it to antipyrine. Such is my experience of phenacetine, after a fair trial. In seven or eight grain doses every four hours, it is a safe and effectual remedy in all neuralgias, be they in the head, back, or any other part of the body.

Rifit (*Bull. de Ther.*) reports very favorable results from large doses of phenacetine in acute articular rheumatism, particularly that of gonorrhœal origin. He gives the fifteen grains every three hours the first day, increasing the dose the following day, until the pain is relieved and the joints become movable. This occurs as a rule when six to eight doses per diem are given. These large doses are continued for three days longer, then gradually reduced to three times per day fifteen grains one week longer, and then omitted. Treatment by this plan reduced the time to twenty-one days, while that by the salicylate is thirty-five, and by antipyrine twenty-five days. In twelve cases so treated no heart symptoms were noticed. Relapses are unusual if the above plan is followed.

RADEMAKER says that the hyperacidity of acute rheumatism is due to paralactic acid.

[1] *Provincial Medical Journal*, Sept. 1, 1889, p. 546.

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WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

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OUR STUDENTS' NUMBER.

IN the present number we present our readers with an epitome of the requirements of medical colleges in the country and abroad. The tables represent the work of months spent in corresponding with these institutions, collating and comparing the information thus obtained. For much of this we are indebted to the *Journal of the American Medical Association*, the Reports of the Illinois State Board of Health, and the Students' Numbers of the *British Medical Journal.* We trust that our efforts have been of some value, and that students and their preceptors will find these tables of use.

Lack of space inhibits an analysis of the text-books in common use; which was partially prepared for this number, but reluctantly omitted. The lecture system is responsible for a needless multiplication of text-books. Nearly all the college announcements give a list of works on every branch, that are each doubtless of value, but which the student is totally unable to peruse in the short three years of his college course. Were each chair to designate a single work, it is likely that a careful study of this would be of greater benefit to the student, than an attempt to choose between the conflicting views of a dozen.

And yet it is not an easy matter to choose the best. In Practice, for example, we have a number of excellent works, but not one that embraces the good points of all.

Flint gives very good descriptions of disease, but, in spite of Welch's work, his therapy is too nihilistic. People who do not believe in the efficacy of treatment are not apt to believe in the efficacy of physicians.

Bartholow errs on the other side. He cures too much; and when one finds that, in spite of his confident assertions, his remedies do not remedy, it is rather discouraging.

Roberts is the book for a beginner. He gives the definitions clearly; the book is well balanced; he avoids discussions, and sticks to well-established facts; but still his book is but a skeleton, and he gives facts rather than principles.

Loomis' Clinical Medicine is, we believe, the best of the American works on practice. He has the most recent work in many branches, and is well up to the times. He is not so clear as Roberts, nor so comprehensive, nor so dry.

Fagge's book is the best of modern works for the practitioner; it is a work of the highest order of merit; but it presupposes a degree of knowledge not generally found in the student.

Niemeyer's work is now becoming old; so that the practitioner must supplement it with more modern treatises. But in one respect it excels all others, and that is in the profundity of its reasoning. He was a wonderfully clear thinker, and the greatest of therapeutists in his day. If it be understood that the object of medical study is not so much the acquisition of facts as the training of the mind in correct methods of thought, then the superiority of this work is manifest. No human brain can acquire, by a sheer effort of memory, the facts of medical science. But Niemeyer not only gives the fact, but the reason for it; he shows why a thing is, because it cannot possibly be otherwise; and the student who fairly comprehends his reasoning, never forgets it. And though the latest editions of his work appeared before the brilliant discoveries of Koch and Pasteur had inaugurated the new era in medical science, the student will find scarcely anything to unlearn in Niemeyer. His work is a foundation broad enough to hold the modern structure. Great man! Profound in reasoning and vigorous in action. He has left behind him men of erudition, brilliant writers and accomplished physicians, but no successor worthy to wear his shoes. In studying his works, one can understand the love our fathers had for George B. Wood; and how Sydenham's works never grow old.

In the department of Physiology, we desire to call especial attention to Landois' and Stirling's work. It is really a manual of physiological therapeutics; and the physician who has practised long enough to know and respect the vital forces will find this book a veritable mine of riches. Get it, read it, and then thank us for calling your attention to it.

Much of our space in this number is taken up with reports on new remedies. So conflicting are the statements concerning these that the practitioner hardly knows what to believe. A digest of these, however, will often show the reasons for the discrepancy; in diverse methods of administration, or in the writers' ways of judging results. Miscellaneous experimentation often develops unexpected applications of the agents employed.

Among these new agents, one of the most promising is aristol. From present appearances it bids fair to replace iodoform in every thing except the treatment of chancroid. If subsequent experience confirms the early reports, it will become a prime favorite. In Philadelphia many surgeons have substituted it as a surgical dressing, and all the opinions given to us personally have been favorable.

Sulphonal is distinguished as a hypnotic by the certainty of its action, when the conditions are favor-

able. The most valuable article upon it that has yet appeared is that of Dr. Field, which is summarized in Dr. Eastlake's paper. It is a drug which should be prescribed with a clear idea of the indication, or failure will result. In fact, it may be said of nearly all the newly introduced chemical products, that they are sharply differentiated agents, intended to replace the old "vade mecum" of five drugs which were given for everything, by a whole shop-full of tools, each of which is to be used for one thing, and one only. This may represent in medicine such an advance as the separation into families was in anthropology.

We close with a few words concerning ourselves. Heretofore THE TIMES AND REGISTER has contained twenty-four pages of reading matter weekly, consisting of original articles, society proceedings, reports from the college and hospital clinics, editorials, correspondence, a digest of current medical literature, and another of current medical news. We have always felt that a weekly must be a news purveyor, and that original papers should not occupy as much space as in the monthly medical magazines. A weekly also offers the best medium for queries and replies, as the latter can be furnished so much more promptly than in a monthly. To give more space to these departments, and to further enhance the value of our journal, we have decided to add a series of monographs, each occupying sixteen pages. These are to be written upon practical subjects, such as most directly affect the practitioner. Of those already in preparation, we are authorized to announce the following: The Question of Abdominal Operation as it Affects the Family Physician, by Prof. E. E. Montgomery; The Management of Pulmonary Consumption, by Prof. Frank Woodbury; The Significance and Treatment of Convulsions, by Prof. Samuel Wolfe; Typhoid Fever, by Prof. W. F. Waugh. Other papers have been promised by Prof. J. N. Upshur, Dr. S. V. Clevenger, Prof. Lydston, and a number of other writers of eminence. Each paper is intended to be a complete review of the subject named, and the whole series will form a valuable collection of monographs, brought down to the date of publication. It is our present intention to publish one of these papers monthly; but if we receive the support from the profession we hope for, they will appear semi-monthly or weekly, thus making our regular issues of forty pages each. This can be done without increasing the present cost to the reader, if those who receive this number approve of our project and support it by their subscriptions.

WILLIAM F. WAUGH.

PHENACETINE.

IT is well, in the pursuance of knowledge, to occasionally stop and look backward, in order to form an idea of the advance obtained. In the field of therapeutics a glance over the past few years cannot fail but to afford satisfaction even to the most ambitious investigator. A series of remedies has been discovered, the value of which we are only beginning to realize. One which occupies an almost unique position, on account of its manifold properties, is phenacetine.

Phenacetine is a white, tasteless powder, insoluble in cold water, but soluble in glycerine; it may be given in powder, tablet, or pill form, and is usually exhibited in doses ranging from two to five grains. The drug was first taken up extensively during the recent epidemic of "*la grippe*," and in this disease it acted almost as a specific. It was found to be most valuable in controlling the muscular pains which attended the influenza; but indeed the experience of all who used the drug, and reported their results, shows that it controlled all but the catarrhal symptoms of the epidemic. In many cases, no other treatment was found necessary. Simultaneously with these observations, the drug's value in the treatment of whooping-cough was demonstrated. Dr. G. C. Irwin, in the *Archives of Pediatrics*, reporting a case of pertussis, in which severe spasms occurred hourly, states that phenacetine in half-grain doses, given every four hours, gave immediate and permanent relief.

Several other cases of a similar nature were reported by the *New York Medical Times*, and in other journals, also one case in which the cough attending an acute attack of pharyngitis was completely relieved by five grain doses of the drug. Many other articles have recently appeared in medical journals confirming the above experiences, and praising the drug both as an antipyretic and antineuralgic. It is not our intention, however, to rehearse in this editorial the history of past results; but rather to lay before our readers the present aspect of the drug, its uses, and the results obtained with it. For this purpose we have personally interviewed the resident physicians of the leading hospitals of Philadelphia, and carefully noted their experiences, examined temperature charts and histories of cases in which the drug has been and is being used, and questioned most carefully regarding negative results, etc.

In the Hospital of the University of Pennsylvania the drug has been used with unqualified success, both as an antipyretic and antineuralgic. Untoward effects have never been observed, and cases in which the drug has given negative results are almost unknown. Phenacetine has established for itself in this hospital the reputation of being the safest of all antipyretics, and at once the most efficient.

In the Jefferson College Hospital, the drug has not received such careful study. Dr. Hearn, the Medical Resident, has used it frequently as an antineuralgic, and has also observed a hypnotic action, which, however, is probably induced by the relief from pain. In certain cases the drug seemed to give negative results, but these were few. The anodyne properties of the drug were also manifest in the relief it afforded patients suffering from pain other than neuralgic, and its action was frequently remarkable, both for rapidity and efficiency. Dr. Dean, also a Resident in the Jefferson College Hospital, used the drug extensively in the female gynecological ward, and found it valuable in the treatment of the headache, so often accompanying uterine disease. Also the pains in the pelvic organs themselves were frequently completely relieved by the drug. In the maritime ward the drug did not give such good results, and frequently failed in the treatment of neuralgic headaches. In all cases never more than five grains were exhibited at a dose, and it should be mentioned that in the very same cases in which phenacetine failed, heroic doses of calomel or opiates had to be given when the action of these drugs was called for. The failure of the drug was, therefore, due rather to the insusceptibility of the patients to drugs, rather than to the

inefficiency of the drug itself. On the whole, however, his experiences were favorable.

The drug has received the most careful consideration, and the most admirable results have been obtained at the Pennsylvania Hospital, of Philadelphia. Phenacetine was practically first introduced into the wards of the Pennsylvania Hospital by Dr. F. B. Gummey, and it has now been universally used in the hospital for nearly two years.

The greatest value of phenacetine seemed to be in its marvelous antipyretic properties, and its chief use has been in the treatment of typhoid fever. The drug has never failed in a single instance to produce a rapid and considerable lowering of the temperature, unaccompanied either by cyanosis, heart symptoms, weakness, or any other unpleasant symptom. Doses of five grains were primarily exhibited, but the antipyretic property of such doses was found to be too powerful, the temperature frequently dropping from six to seven degrees, or from 105° to normal. Three-grain doses were, therefore, substituted, and found to be equally as efficacious, while not so powerful; the decrease of temperature ranging from two to three degrees. No depressing effects whatever have been observed to follow the use of the drug. It is always well tolerated by the stomach, and in no instance has it either caused nausea or vomiting.

The temperature having been reduced by phenacetine, usually remains low for ten or twelve hours. Phenacetine acted promptly where quinine and antipyrin entirely failed, and where sponging had to be abandoned on account of the alarming symptoms of cyanosis it produced. The delirium was also greatly relieved; the patients usually becoming quiet and rational soon after taking the drug.

In one case of unusually severe typhoid fever, three grains reduced the temperature from 105° to 103° and kept it there for twelve hours, and on the following day the administration of six grains of the drug reduced the temperature from 104⅘° to 98⅕° within a few hours. In this case phenacetine in three-grain doses was continually used throughout the entire course of the disease, and an ultimate recovery resulted. The long continued use of phenacetine does not appear to exert any accumulative effects whatever, and the same dose will be found equally as efficient after weeks of daily use, as when first administered.

Compared with other antipyretics, it undoubtedly takes the first place, the chief points which make it superior, being:

1. Its tastelessness.
2. The absence of gastric irritation following its use.
3. The absence of any depressing effect either upon the heart or circulation.
4. Its promptness.
5. Its power and the long continuance of its action.
6. The absence of accumulative effects.
7. Its harmlessness.

No case of poisoning from phenacetine is on record.

Dr. Gilman, Resident in charge of the Woman's Medical Ward of the Pennsylvania Hospital, also uses phenacetine continually in the treatment of typhoid fever, and with results equal to those obtained by Dr. Gumney, excepting that two and-a-half grain doses were generally employed, instead of three grains.

Regarding the anti-neuralgic properties of phenacetine, they have been found equal if not superior to those exerted by antipyrin. Excellent results were obtained by Dr. Gumney in three cases of acute rheumatism in which salicylic acid and the iodides had entirely failed; two-grain doses of phenacetine gave immediate and complete relief.

In a case of severe endocarditis, in which there were daily chills and alarming temperatures, five-grain doses of phenacetin repeatedly brought down the temperature from 105° to normal, and once a drop of ten degrees was noted. In only one instance was the antipyretic action of phenacetine absent, and this was in a fatal case of pyemia following a surgical operation.

At the Medico-Chirurgical Hospital, phenacetine has been used largely by Dr. Waugh as an antipyretic and anodyne. In neuralgias occurring in anemic persons, and in those suffering with organic affections of the heart, phenacetine is especially useful. He prefers small doses: two grains repeated every one, two, or three hours. In the dysmenorrhœa of anemic women it is an efficient remedy. Two cases of whooping-cough, both quite severe, were treated with phenacetine in half-grain doses every two hours. Both were well in less than ten days; the whooping ceasing in less than a week. In these cases the drug was given as soon as the whooping made the diagnosis certain.

Dr. Waugh has already recorded a curious instance of the use of phenacetine in measles. The drug dissipated every symptom and kept them away for about five days. It was then discontinued during a temporary absence of Dr. Waugh from the city, and meanwhile the disease recurred. Phenacetine was again given in small doses, and the affection passed over in a mild form, with far less suffering from catarrhal symptoms than is usual.

Insomnia is often the result of irritation, producing perhaps some rise in temperature, or, at any rate, the sensation of heat. The stimulation of coffee also causes sleeplessness. In these cases small doses of phenacetine act as a safe and efficient hypnotic, free from danger of every kind. So also when insomnia is due to pain of a minor degree, but yet sufficient to destroy rest, phenacetine will give relief. Perhaps not the least important of its hypnotic applications is in the case of children irritated by teething or indigestion; when one or two grains suffice to give mother and child their needed repose. In digestive troubles of infancy the drug undoubtedly acts as an antiferment; checking the processes of decomposition in the intestinal canal.

As has been stated, the above is a report of the drug's value as it is found at present in hospital practice, and no further comment is needed.

Our work ends here. The editor can only hold forth the light that has been kindled by careful research. It now remains for the profession to perceive and make use of it. And here we would urge upon our readers the value of the reports of individual experiences. The number of writers, or even occasional contributors, to medical journals is comparatively small, and scores of practitioners in every city in the Union fill their case-books with matters of the utmost practical importance only to have them stored away and forgotten. It is therefore the duty of every practitioner to add what he can to the evidence for or against a drug or treatment; and, if he can find a light amid the darkness of uncertainty and failure, let him set it on a bushel, that the whole house may be lighted.

A YOUNG lady is being treated in the Clifton Springs Sanitarium for an uncontrollable appetite for chocolate, which she has eaten so freely that her skin has assumed the tint of her favorite confection.

MEDICAL COLLEGE ANNOUNCEMENT FOR 1890-91.

Number.	State.	Name and Location of College.	Organized.	Matriculation. Requirements. Age	Matriculation. Requirements. Educational.	Weeks in Regular Term.	Terms in Full Course.	Graded Course.	No. Beds at command for Clinical Instruct'n.	Number Instructors.	Obligatory, Practical and Laboratory Courses. Surgery.	Obstetrics.	Gynecology.	Chemistry.	Pharmacy.	Physiology.	Histology.	Pathology.	Bacteriology.	Physical Diagnosis.	Post-mortem Examination.	Hygiene Taught.	Medical Jurisprudence.	Women Admitted.	Practical Examination.	Graduation Requirements. Years of Study.	No. Reg'l'r Course	Dissection Course	Dissection Required.	Hospital Work Required.	Clinical Work Required.	Thesis.	Fees. Matriculation.	Per Course.	All Courses.	Laboratory and Dissection.	Other Fees.	Graduation.	Total Fees.	Prizes.	Hospital Positions for Graduates.	Term Begins.
1	Alabama.	Medical College of Alabama, Mobile.	1859			20	2	No		14	Yes											Yes	Yes	No	No	3	2	2	Whole body.			No	$5	$75	....	$20	....	$25	$205	....	....	.....
2	Arkansas.	Med. Dep. Arkans. Ind. Univ., Little Rock	1879		C. S. c.	20	2	No	50	16	Yes	Yes	Yes	Yes	No	Yes	No	No	No	Yes	Yes	Yes	Yes	No	Yes	3	2	2	Whole body.	Yes	Yes	Yes	5	50		15	$3	25	142			
3	California.	Cooper Medical College, San Francisco.	1859	18	T. c.	20	4	No	262	16	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	3	3	2	Whole body.	Yes	Yes	Yes	5	130	$260	20	....	40	315	No	5	June
4	"	Med. Dep. Univ. of California, San Franc.	1863	18	H. S. d.	22	3	Yes	250	18	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes		3	3	2	Whole body.		Yes	No	5	130	260	20	....	40	325	No	3	June
5	"	Col. of Med. Univ. of S. California, Los Ang'l's	1883	18	H. S. d.	24	3	Yes	300	23	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	3	3	2	Whole body.	Yes	Yes	Yes	5		260	20		40	325			
6	Canada.	University of Toronto, Toronto.	1843	16	U. d.	24	4	Yes	350	32	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	4	4	2	Whole body.	24 mo	12 mo	Yes	5		321		8	20	354			
7	"	Trinity Medical College, Toronto.	1850			27	3	Yes	275	23	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	4	3	2	Whole body.	18 mo	2 yrs.	No	5									
8	"	Royal Col. Phys. and Surg., Kingston.	1854		T. c.	25	4	Yes	100	14	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	4	4	2	Whole b'y tw'ce	24 mo	26 mo	Yes	5	150				30				
9	"	Medical Dep. Western Univ., London.	1882	17	H. S. d.	20	4	Yes	100	18	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	4	4	2	One subject.	3 yrs.	Yes	No	7	163				25				
10	"	Woman's Medical College, Toronto.	1883		T. c.	24	4	Yes	375	24	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	4	4	2	Six parts.	24 mo	24 mo	No	5	196	....	....	....	16		Yes	No	Oct. 1
11	"	Woman's Medical College, Kingston.	1883	17	H. S. d.	27	4	Yes	250	12	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	4	4	2	Whole body.	24 mo	24 mo	Yes	5	152			10	30				
12	"	McGill University, Montreal.	1824	21	H. S. d.	26	5	Yes	175	23	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes	4	4	2	Indefinite.	18 mo	Yes	No	5	100	353	....	28	30	416	No	7	Oct. 1
13	"	Ecole de Méd. et de Chirurgie, Montreal.	1843		C. d.	6 mos	4	Yes	250	19	Yes	Yes	Yes				Yes	Yes		Yes	Yes	Yes	Yes		Yes	4	4	2	Six parts.	18 mo	Yes		2	60			8	30	160			
14	"	Laval University, Montreal.	1852	18	Ex.	36	4	Yes	100	26	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	4		2	Four subjects.	Yes	Yes			24	85	5		20				
15	"	University of Bishop's College, Montreal.	1870	21	Ex.	24	4	Yes	200	16	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	4	4	2	Six extremites.	Yes	Yes	No								7	3	Oct. 1
16	Nova Scotia	Halifax Medical College, Halifax.	1867	16	T. L.	23	4	Yes	120	14	Yes	Yes	No	Yes	No	No	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes	4	4	2	Body twice.	Yes	Yes	No										Oct.
17	Manitoba.	Manitoba Medical College, Winnipeg.	1883			28	4		100	14		Yes			Yes	Yes						Yes	Yes	No	No	4	4	2	Body twice.	18 mo	Yes	No	..	70	....	....	....	....	....	No	No	Oct. 7
18	Colorado.	University of Denver, Denver.	1881		H. S. d.	26	2	No	300	21	Yes	No	No	No	No	No	No	No	No	Yes	No	Yes	Yes	Yes	Yes	3	3	2		No	Yes	No										
19	"	University of Colorado, Boulder.	1883	21	H. S. d.	33	2	No	24	12	Yes	No	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	3	3	2	Whole subject.	No	Yes	Yes	5	....	free	5	....	....	10	No	No	Sep. 8
20	"	Gross Medical College, Denver.	1887		C. S. c.	23	2	No	100	16	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	Yes	No	3	2	2	Whole subject.	Yes	Yes	No										
21	Conn'cticut	Yale University, New Haven.	1812	18	H. S. d.	34	3	Yes	125	20	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	3	3	2	Three parts.	Yes	Yes	Yes	5	....	125	....	....	30	160	2	10	Oct. 2
22	Dist. of Col.	National Medical College, Washington.	1821		H. S. d.	20	3	Yes	250	13	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	3	3	2	Four parts.	Yes	Yes	No	5	100	355	20	10	20		Yes	No	Oct. 1
23	"	University of Georgetown, Georgetown.	1850		H. S. d.	30	3	Yes	300	21	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No	No	3	3	2	Three parts.	No	No	No	5	105		20	....	15	245	No	No	Oct. 1
24	"	Howard University, Washington.	1868	20	C. S. c.	20	3	Yes	300	16	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	3	3	2	Three parts.	Yes	Yes	No		50		9			159			Oct. 1
25	"	Medical Dep. National Univ., Washington.	1884	18	H. S. d.	31	3	Yes	?	18	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	3	3	2	Whole subject.	No	Yes	No	5			20		20	260	....	....	Oct. 1
26	Georgia.	Medical College of Georgia, Augusta.	1829		None.	20	2	No	55	11	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	3	2	1	Indefinite.	No	No	No	5	75	150	10		30	270			Nov. 1
27	"	Atlanta Medical College, Atlanta.	1854	21	None.	20	2	No	10	14	Yes	Yes	Yes	Yes	No	No	No	No	No		No	Yes	Yes	No	No	3	2	1	Whole subject.	No	Yes	Yes	5	75	150	10		30	270			Oct. 1
28	"	Southern Medical College, Atlanta.	1879	20		20	2	No	30	13	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	2	2	1	Six parts.	Yes	No	Yes	5	75	150	10	10	30	280			Oct. 1
29	"	Woman's Med. College of Georgia, Atlanta.	1889	18	C. S. d.	6 mos	2	No	?	11	No	Yes	Yes	Yes	No	No	No	No	No	Yes	No	No	Yes	Yes	Yes	2	2	2	All parts.	No	Yes	Yes	5	70	140	10	....	25	250	Yes	No	Oct. 1
30	Illinois.	Rush Medical College, Chicago.	1842		T. c.	26	2	No		35	Yes	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	Yes	No	Yes	3	2		Whole body.	No	Yes	No	5	80	240	10	19	30	324			Oct. 1
31	"	Chicago Medical College, Chicago.	1859	18	C. S. c.	30	3	Yes	250	29	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	3	3	2	Half subject.	Yes	Yes	Yes	5	75	150	15	10	30	291			Oct. 1

32	Illinois.	Woman's Medical College of Chicago.	1870		T. c.	30	2	No		29	No	No	No	Yes	No	No	Yes	Yes	No	No	No	Yes	Yes	Yes		3	2	2		No	Yes	No	$5	$60	$120	$15	$10	$30	$180			Sep 1
33	"	College of Phys. and Surg. of Chicago.	1882		T. c.	6 mos	2	No		31	Yes	No	No	Yes	No	Yes	Yes	No	No	No	No	Yes	Yes	No		3	3	2	Whole body.	Yes	Yes	No	5	60	150	8	10	30	203			Sep 4
34	"	Chaddock School of Medicine, Quincy.	1882	17	C. S. c.	20	3	Yes		11												Yes	Yes	Yes		4	3	2		No	No	No	5	40	120	10		25	150			Oct. 1
35	Indiana.	Medical College of Indiana, Indianapolis.	1878		T. c.	20	2	No		29												Yes	Yes	No		3	2			No	No	No	5	40	120	15	6	25	171			Oct. 1
36	"	Central College of Phys. and Surg., Ind.	1879		C. S. c.	22	2	No		15	Yes	No	Yes	Yes	Yes	No	Yes	No	No	Yes	No	Yes	Yes	Yes	No	3	2	3	Three parts.	Yes	No	No	5	40	120	10	6	25	166			Oct. 1
37	"	FortWayne Col. of Medicine, Ft. Wayne.	1879		C. S. c.	22	2	No		13	Yes	No	No	Yes	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	No	3	2	1	One subject.	Yes	No	No	5	40	120	10	5	25	165			Oct. 1
38	Iowa.	College of Physicians and Surg., Keokuk.	1849		T. c.	20	2	No		11	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes	No	3	2	2		No	No	No	5	20	40	5	3	30	183	....	...	Oct. 1
39	"	Med. Dep. State Univ. of Iowa, Iowa City.	1870		H. S. d.	6 mos	3	Yes		13	Yes	Yes							Yes		Yes	Yes	Yes		3	3	2				No	5	20	60	10	3	25	102			Nov.
40	"	Iowa Col of Phys. and Surg., Des Moines.	1882		C. S. c.	21	3	Yes	25	16	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	4	3	2	Extremities.	No	Yes	No	5	45	135	15	....	25	175	No	No	Oct.
41	Kansas.	Wichita Medical College, Wichita.	1889	18	C. S. c.	24	3	Yes	75	19	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No		3	3	1	Whole body.	Yes	Yes	No	5	50	150	10		25	190	No	No	Oct. 1
42	Kentucky.	Univ. of Louisville, Med. Dep., Louisville.	1837		C. S. c.	21	2	No		19									Yes		Yes	Yes	No	No	3	2	1			Yes	No	5	75	150	10	5	30	200			Sep
43	"	Kentucky School of Medicine, Louisville.	1850		T. c.	20	2	No	400	18	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No	No	3	2	2	Whole body.	No	Yes	No	5	75	150	15	5	30	205			Feb. 1
44	"	Louisville Medical College, Louisville.	1869	19	T. c.	24	2	No	250	15	Yes	No	No	Yes	Yes	No	No	No	No	Yes	No	Yes	Yes	No	No	3	2	2	Whole body.	Yes	Yes	No	5	50	100	10	5	30	200			Sep 1
45	"	Hospital College of Medicine, Louisville.	1873		T. c.	20	3	Yes	350	16	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	4	3	2	Two subjects.	Yes	Yes	No	5	75		10	5	30	275	3	1	Jan 27
46	Louisiana.	Medical Dep. Tulane Univ., New Orleans.	1834		None.	23	2	No	800	27	No	No	No	Yes	No	Yes	No	No	No	No	No	Yes	No	No		3	2	2	Whole body.	Yes	Yes	Yes	5	140	280	10	....	30	325	No	No	Oct.
47	"	N. Orleans Univ., Med. Dep.(*Col.*)New.Or.	1889	18	N. S. d.	20	3	Yes		4												No	No	Yes		3	3					Yes			75			10	85			Nov.1
48	Maine.	Medical School of Maine, Brunswick.	1820	18	H. S. d.	20	2	No	None.	11	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	No	3	2	2	Two parts.	No	No	Yes	5	78	156	10		25	196			Feb. 1
49	Maryland.	Univ. of Maryland, School of Med., Bal.	1807		None.	26	2	No		35	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No		3	2	2			Yes	Yes	5	120	360	10		30	405			Oct. 1
50	"	College of Physicians and Surg., Baltimore.	1872		None.	22	2	No		23	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	No	No	3	2	2	Indefinite.	No	No	No	5	120	240	4		30	279			Oct. 1
51	"	Baltimore Medical College, Baltimore.	1881	19	C. S. c.	28	2	No	90	17	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	3	2	2	One subject.	Yes	Yes	No	5	100	200	....	....	30	235	No	9	Oct. 1
52	"	Woman's Medical College of Baltimore.	1882	18	C. S. c.	28	3	Yes	20	26	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	3	3	2	One subject.	Yes	Yes	No	5	75	150	...	....	30	65	No	3	Oct. 1
53	"	Balt. Univ., School of Med., Baltimore.	1884		C. S. c.	22	2	No		14	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes			3	2	2				Yes	5	50	100	10		30	145			Oct. 1
54	"	Johns Hopkins University, Baltimore.	1889					Yes		16	Yes		Yes					Yes	Yes	Yes		Yes																				Oct. 1
55	Massach's's	Harvard University, Med. School, Boston.	1782	19	C. d.	40	3	Yes		56	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No		3			Three parts.			Yes	5	200	600				600			Oct. 1
56	"	Col. of Physicians and Surgeons, Boston.	1880	18	C. S. d.	24	3	No	None.	13	No	No	No	Yes	No	No	No	No	No	Yes	No	Yes	Yes	Yes	Yes	3	2	1	One part.	No	No	Yes	5	85	170	13	....	30	218	No	No	Oct. 1
57	"	Clark University, Worcester.	1889				2			6																												200			Oct. 1
58	Michigan.	Dep.of Md.&Sur.,Univ.of Mich.,AnnH'rb'r	1850	18	H. S. d.	36	4	Yes	80	19	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	4	4	2	Whole body.	1 year	1 year	No	25	35	70	40		10	145	No	No	Oct. 1
59	"	Detroit College of Medicine, Detroit.	1885	18	H. S. d.	26	3	No	235	35	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No		3	2		Whole body.	Yes	Yes	No	5	50	100		'10	30	145	2	4	Sep 24
60	"	Michigan Col. of Med. and Surg., Detroit.	1888	18	C. S. c.	26	2	No	80	14	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes	No	3	2	2	Two parts.	Yes	Yes	No	5	50	100			25	130			Sep.
61	Minnesota.	Minneapolis Col.of Phys. and Surg., Minn.	1883		C. S. c.	26	3	Yes	40	20	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	3	3	2	Whole subject.	Yes	Yes	No	5	40	120		5		130			Sep.
62	"	College of Med. and Surg., Minneapolis.	1883		T. c.	26	3	Yes		30	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	3	3		Three parts.	Yes	Yes		75	35	105			10	190			Oct.
63	Missouri.	Missouri Medical College, St Louis.	1840	18	T. c.	6 mos	3	Yes	80	35	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	4	3	3	Whole body.	No	Yes	No	5	60	120	....	70	30	125	2	7	Sep 30
64	"	St. Louis Medical College, St. Louis	1841	17	C. S. c.	34	3	Yes	1000	32	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	3	3	3		No	No	No	5	90	270		30		395			Sep 23
65	"	Kansas City Med. College, Kansas City.	1869	19	H. S. d.	23	2	No	100	19	No	Yes	No	Yes	No	No	Yes	Yes	No	Yes	No	Yes	No	No	Yes	3	2	2	Two subjects.	No	Yes	No	5	50	100		10	20	135			Sep.
66	"	St. Louis Col. Phys. and Surg , St. Louis.	1869	18	H. S. d.	24	2	No		19	Yes	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	No	Yes	3	2	2	Whole body.	Yes	Yes	No	5	50	100			25	130			Sep.
67	"	North-western Medical College, St.Joseph.	1880	19	H. S. d.	22	2	No	75	12	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	3	2	2	All parts.	Yes	Yes	Yes	5	35	70		10	25	140			Oct.
68	"	Univ. Med.Col. of Kansas City, Kans.City.	1881	17	H. S. d.	26	2	No	None.	18	Yes	Yes	Yes	No	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	3	2	2	All parts.	No	Yes	No	5	50	100		10	20	125			Sep.
69	"	Ensworth Medical College, St. Joseph.	1882	20	T. c.	24	2	No	200	15	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	3	2	2	All parts.	6 mos	No	No	5	35	70		10	25	40	No	Yes	Oct. 1
70	"	Beaumont Hospital Med. Col., St. Louis.	1886		C. S. c.	28	2	Yes	500	18	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	3	2	2	Indefinite.	Yes	Yes	No	..	70	160	....	....	....	160	No	15	Sep

MEDICAL COLLEGE ANNOUNCEMENT FOR 1890-91.—*Continued.*

(Altered from Table in the Journal of the American Medical Association.)

Number.	State.	Name and Location of College.	Organized.	Matriculation. Requirements.		Weeks in Regular Term.	Terms in Full Course.	Graded Course.	No. Beds at command for Clinical Instruct'n.	Number Instructors.	Obligatory, Practical and Laboratory Courses.										Hygiene Taught.	Medical Jurisprudence.	Women Admitted.	Practical Examination.	Graduation Requirements.					Fees.						Prizes.	Hospital Positions for Graduates.	Term Begins.
				Age	Educational.						Surgery.	Obstetrics.	Gynecology.	Chemistry.	Pharmacy.	Physiology.	Histology.	Pathology.	Bacteriology.	Physical Diagnosis. Post-mortem Examination.					Years of Study.	No. Reg'r Course	Dissection Course	Dissection Required.	Hospital Work Required.	Clinical Work Required.	Thesis.	Matriculation.	Per Course.	All Courses.	Laboratory and Dissection.	Other Fees.	Graduation.	Total Fees.			
71	Missouri.	St. Louis Hyg.Col. of Phy.&Sur., St.Louis.	1887	18	T. c.	6 mos	3	Yes		14	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes		3	3	2	Whole body.	Yes	Yes	No	$5	$60	$180	$10	....	$25	$220	No	4	Oct. 1
72	Nebraska.	Omaha Medical College, Omaha.	1881	18	T. c.	25	2	No	100	21	Yes	Yes	No	Yes	No	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	3	2	2	All parts.	Yes	Yes	No	5	45	90	5	$5	25	130	No	No	Oct. 1
73	New Hamp.	Dartmouth Medical College, Hanover.	1797	18	H. S. d.	20	2	No	None.	15	No	No	No	Yes	No	No	No	No	No	No	No	Yes	Yes	No	No	3	2		All parts.	No	No	No	5	77	154	15	42	25	241	No	No	July10
74	New York.	College of Phys and Surg., New York.	1807	18	C. S. c.	37	3	Yes		83	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	3	3	2	Whole body.	No	Yes	No	15	150	450	3		30	488			Oct.
75	"	Albany Medical College, Albany.	1838	18	T. c.	25	3	Yes	150	29	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	3	3	1	All.	Yes	Yes	Yes	5	100	300	10	10	25	345	11	4	Sep 23
76	"	Univ. City of New York, Med. Dep., N. Y.	1841		None.	23	2	No		52											Yes	Yes			3	2	1				No	5	140	280	10		30	325			Oct.
77	"	Med. Dep., Univ. of Buffalo, Buffalo.	1846	18	T. c.	24	2	No	100	18	No	No	No	Yes	Yes	No	Yes	Yes	No	No	No	Yes	Yes	Yes	No	3	2	2	Half subject.	Yes	Yes	Yes	5	100	200	10	10	25	250	No	No	Sep.
78	"	Long Island College Hospital, Brooklyn.	1858	18	None.	24	2	No		45	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	3	2		All parts.	Yes	Yes	No	5	100	200	25	40	25	295			Sep.
79	"	Bellevue Hospital Med College, NewYork.	1861		None.	23	2	No		45				Yes			Yes	Yes					No		3	2	1				No	5	140	280	10	10	30	335			Sep.
80	"	Woman's Med.Col. of N.Y. Infirmary, N.Y.	1868		H. S. d.	32	2	Yes	40	19	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	3	3		Six parts.	Yes	Yes	Yes	5	60	210	10	60	30	315	No	No	Oct. 1
81	"	Col. of Med. of Syracuse Univ., Syracuse.	1872	18	T. c.	33	3	Yes	150	24	No	No	No	Yes	No	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	3	3	2	Whole subject.	No	No	No	5	80	140	5	....	25	170	2	4	Oct. 7
82	"	Med. Dep. of Niagara University, Buffalo.	1883		C. S. c.	28	3	Yes	195	23	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	3	3	2	Half sub. twice.	Yes	Yes	No	5	75	165	15	....	25	220	No	3	Sep 24
83	N.Carolina.	Leonard Med School (*Col.Stud.*) Raleigh.	1882	18	C. S. c.	5 mos	4	Yes		7											No	Yes	Yes	Yes	4	4	2	Whole body.			Yes	5	60	120		3	10	138			Nov.
84	Ohio.	Medical College of Ohio, Cincinnati.	1819	18	T. c.	22	2	No	650	33											Yes	Yes	No	No	3	2	2	Two regions.	Yes	Yes	No	5	75	150	20	25	25	225	No	20	Sep. 3
85	"	Western ReserveUniv., Med.Dep.,Clevel'd	1843	18	T. c.	24	3	Yes	175	22	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	3	3	2	Three parts.	No	No	No		75	225			30	255			Sep.
86	"	Starling Medical College Columbus.	1847	19	C. S. c.	24	2	Yes	150	14	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	3	2	1	All parts.	Yes	Yes	Yes	5	50	100	20	....	25	150	4	1	Sep 10
87	"	Cincinnati Col. of Med. and Surg., Cin.	1849		C. S. c.	22	2	No		23	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	No	3	2	2	Two parts.	Yes	Yes	No	5	40	80	15	5	25	130	No	7	Oct. 1
88	"	Miami Medical College, Cincinnati.	1852		C. S. c.	24	2	Yes	450	18	No	No	No	Yes	No	No	No	No	No	No	Yes	Yes	No	No	3	3	1	One subject.	Yes	No	No	5	75	150	10	15	25	205			Sep.
89	"	Med. Dep. Univ. of Wooster, Cleveland.	1863		T. c.	21	3	Yes		22	Yes	No	No	Yes	Yes	No	Yes	No	No	Yes	No	Yes	Yes	Yes	No	4	3	2	Whole body.			No	5	60	180	....	....	30	215	No	1	Mar. 4
90	"	Columbus Medical College, Columbus.	1875	21	T. c.	26	2	No	250	19	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	No	3	2	2	Whole body.	Yes	Yes	Yes	10	40	100	5	5	25	145	Yes	No	Sep. 4
91	"	Toledo Medical College, Toledo.	1883	18	C. S. c.	26	3	Yes	200	14	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	4	3	2	Whole body.	Yes	Yes	No	5	40	120	10	15	25	175	No	No	Sep 17
92	"	North-western Ohio Med. College, Toledo.	1883	18	C. S. d.	24	3	No	250	21	No	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	4	3	2	Whole body.	Yes	Yes	Yes	5	40	80	15	....	25	125	No	No	Sep 17
93	"	Woman's Med. College of Cincinnati, Cin.	1887		C. S. c.	20	2	No		15				Yes	Yes	Yes	Yes	Yes	No		No	Yes	No	Yes		3	2	2			No	No	5	40	80	15	5	25	136			Feb.
94	Oregon.	Med.Dep.Willamette University, Portland.	1861	19	C. S. c.	26	3	Yes	100	13	No	No	No	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	3	3	3	Whole body.	No	Yes	Yes	5	120	360	10	....	30	425	No	1	Oct. 7
95	"	Univ. of State of Oregon,Med. Dep., Portl'd	1887		H. S. d.	25	3	Yes	350	19	Yes	Yes	Yes	Yes	No	No	No	No	No	Yes	No	Yes	Yes	Yes	No	3	3	1	Three parts.	No	No	No	5	120	360	10	30	30	405			Oct.
96	PennsylV'a.	Univ. of Pennsylvania, Dep.of Med., Phila	1765		T. c.	30	3	Yes	1100	66	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	3	3	2	Six parts.	Yes	Yes	No	5	40	450				455			Oct.
97	"	Jefferson Medical College, Philadelphia.	1826		T. c.	28	3	Yes	150	41	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	3	3	2	Half subject.	No	No	No	5	140	280	10		30	325			Oct.
98	"	Woman's Med. Col. of Pa., Philadelphia.	1850		H. S. d.	32	3	Yes		30	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	3	3	2	Whole body.	Yes	Yes	No	5	150	210	10	...	30	355	No	6	Oct. 1
99	"	Medico-Chirurgical College of Phila., Phila	1881	18	C. S. c.	26	3	Yes	50	40	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	3	3	2	Six parts.	Yes	Yes	No	5	75	250	5	15	....	270	10	52	Oct. 1
100	"	Western Pennsylvania Med.Col., Pittsb'rg	1886		T. c.	26	2	No	200	35	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	3	2	2	Body twice.	Yes	Yes	No	5	100	300	10		25	340			Sep.
101	S. Carolina.	Med.Col. of State of S.Carolina, Charlest'n	1832	19	C. S. c.	25	3	Yes	175	11	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes		No	3	3	2	Six parts.	No	No	No	5	100	200			30	235			Oct.

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Tabular View of the Regulations of the Royal Colleges of Physicians and Surgeons, and of the Society of Apothecaries of London.

(Taken from the "British Medical Journal." Sept. 7, 1889.)

	Royal Colleges of Physicians and Surgeons.	Royal College of Physicians of London.	Royal College of Surgeons of England.		Society of Apothecaries of London.
	Double Qualification.	Licentiates.	Fellows.	Members.	Licentiates.
Age Required.	Twenty-one.	Twenty-one.	Twenty-five.	Twenty-one.	Twenty-one.
Evidence of General Education before Commencement of Professional Study.	Certificate of registration as a student by the General Medical Council.	Certificate of having passed examination in subjects of general education recognized by the General Medical Council, and of being registered as a student.	Certificate of registration by the General Medical Council.	Certificate of registration by the General Medical Council.	Certificate of registration as a medical student by the Medical Council.
Duration of Professional Study.	Forty-five months; at least three winters and two summers at a recognized school or schools.	Forty-five months; at least three winters and two summers at a recognized school or schools.	Six years; or members, two years in addition to the certificate for the diploma of member.	Four years, or not less than four winter and four summer sessions.	Forty-five months, dating from registration as a medical student, not less than three winter and two summer sessions at a recognized hospital and school of medicine.
Course of Lectures, etc., Required. Anatomy and Dissections.	Lectures, six months; dissections, twelve months.	A course of anatomy; dissections, twelve months.	Lectures during two winters; dissections, three winters.	Lectures, two winters; dissections, two winters.	Six months; practical anatomy and demonstrations, two winter sessions, or twelve months.
Physiology.	Lectures, six months; practical physiology, three months.	Physiology and practical physiology, each one course.	Lectures one winter, and practical physiology another session.	Lectures one winter; practical physiology another session.	Six months; histology with demonstrations, three months.
Chemistry	Instruction.	Instruction; time not specified.	One course.	One course.	Six months.
Pract'l Chemistry			Three months.	Three months.	Three months.
Materia Medica			One course.	One course.	Three months.
Pract'l Pharmacy			Three months.	Three months.	Three months.
Botany.	Not required.	Not required.	Not required.	Not required.	No certificate of attendance on lectures on botany is required.
Morbid Anatomy.	Three months; demonstrations in *post-mortem* room during clinical study.	One course; demonstrations in *post-mortem* room during clinical study.	Lectures, three months; demonstrations, three winter and two summer sessions.	Lectures, three months; demonstrations in *post-mortem* room.	Three months; *post-mortem* examinations during hospital practice.
Medicine.	Six months.	One course.	One course.	One course.	Six months.
Clinical Medicine.	Nine months.	Nine months.	One winter and one summer session.	One winter and one summer session.	Nine months.
Surgery.	Six months.	One course.	One winter session.	One winter session.	Six months.
Clinical Surgery.	Nine months.	Nine months.	Two winter and two summer sessions. Observation and examination of patients for three months.	Two winter and two summer sessions. Observation and examination of patients, three months.	Nine months.
Practical Surgery.	Required.	Required.	Six months.	Six months.	Three months.
Midwifery and Diseases of Women.	Three months; attendance on twenty labors.	One course, not less than twenty labors.	One course; not more than ten labors.	One course; not less than ten labors.	Three months; personally attended twenty cases of labor.
Clini'l Study of Diseases of Women.	Three months.	Three months.	Not stated.	Not stated.	Three months; besides this, a course of practical midwifery.
Forensic Medicine.	Three months.	One course.	One course.	One course.	Three months.
Hospital Practice.	Medical and surgical practice, three winter and two summer sessions.	Medical and surgical practice; three winter and two summer sessions.	Surgical practice, four winter and four summer sessions; medical practice, one winter and one summer.	Surgical practice, three winters and two summers; medical practice, one winter and one summer.	Medical and surgical practice, three winter and two summer sessions, with *post-mortem* examinations.
Hospital Appointments.	Medical clinical clerk, six months; surgical dresser, six months.	Clinical clerk, six months; dresser, six months.	House surgeon or dresser, six months.	Dresser, or (after a year of study) charge of patients under superintendence of a surgeon, six months.	Surgical dresser, three months; medical clinical clerk, three months.
Other Certificates.	Systematic practical instruction in medicine, surgery, and midwifery. Of having performed operations on the dead body. Instruction in vaccination.	Systematic practical instruction in medicine, surgery, and obstetric medicine. Instruction and proficiency in vaccination. Moral character.	Instruction and proficiency in vaccination. Comparative anatomy, one course. Operation on dead body.	Instruction and proficiency in vaccination. Examinations in elementary anatomy and physiology at medical school.	Birth; moral character; course of medical study; proficiency in vaccination, signed by a teacher recognized by the Local Government Board; operations performed on the dead body; attendance at class examinations. Signed by the Dean of the medical school.
No. of Examinations.	Three.	Three.	Two.	Two.	Four.
First Examination; When it May be Passed; Subjects.	After registration: (1) In chemistry and chemical physics; (2) materia medica and pharmacy; (3) elementary anatomy and physiology, at end of first six months at recognized school.	After registration as a student; chemistry and chemical physics; materia medica and pharmacy, and osteology.	After third winter session: (1) Anatomy and physiology; (2) after passing first and second examinations of Conjoint Board, or equivalent examination at University in Great Britain recognized for this purpose.	After second winter session; anatomy and physiology.	After registration as medical student; chemistry, physics, practical chemistry, materia medica, botany, pharmacy, prescriptions.

Tabular View of the Regulations of the Royal Colleges of Physicians and Surgeons, and of the Society of Apothecaries of London.– Continued.

	Royal Colleges of Physicians and Surgeons.	Royal College of Physicians of London.	Royal College of Surgeons of England.		Society of Apothecaries of London.
	Double Qualification.	Licentiates.	Fellows.	Members.	Licentiates.
Second Examination; At What Period it May be Passed; Subjects.	Six months after first examination. After eighteen months of study at a recognized medical shool, subsequent to registration; anatomy and physiology, which must be taken up together until the required standard is reached in one or other subject. Materia medica and pharmacy may be taken at this examination.	After eighteen months of study subsequent to registration as a medical student; anatomy and physiology.	After six years of professional study in surgery, including surgical anatomy and pathology, medicine, and midwifery. (Medicine and midwifery not required if passed for the membership, nor from candidates holding approved diplomas, degrees, or licenses, or from those intending to obtain a qualification in medicine and midwifery; the diploma of the college is not issued until proof of having passed the required examination is produced.)	After end of fourth year of professional education; in surgical anatomy, and principles and practice of surgery, medicine, and midwifery.	After twelve months' practical anatomy with demonstrations, anatomy (dissected subject), physiology, histology.
Third Examination; At What Period it May be Passed; Subjects.	Two years after second examination; forty-five months after registration. (1) Medicine; (2) surgery; (3) midwifery and diseases of women. (Forensic medicine and public health are included.) Each part may be taken separately, or all at one time.	Forty-five months after registration; two years after second examination. (1) In medical anatomy and pathology; principles and practice of medicine and therapeutics. (2) Surgical anatomy and pathology; principles and practice of surgery. (3) Midwifery and diseases of women. (Forensic medicine and public health are included.) Each part may be taken separately.			Forty-five months after registration. Principles and practice of surgery; surgical anatomy and operative manipulations; use of instruments and appliances; surgical pathology.
Fourth Examination; At What Period it May be Passed; Subjects.					Forty-five months after registration. Principles and practice of medicine, clinical medicine, pathology, morbid histology, forensic medicine, toxicology, hygiene, obstetric medicine, gynæcology, use of obstetric instruments.
Fees Payable.	At first or second examinations, £10 10s.; re-examination after rejection in either part of examination, £3 3s. At third examination, £15 15s.; re-examination after rejection in medicine or surgery, £5 5s.; in midwifery, £3 3s.	£5 5s. for admission to each examination. Candidates rejected at any examination must pay additional £3 3s. before readmission to examination. Total fee for license, £15 15s.	At first examination: members, £5 5s.; non-members, £10 10s.; £5 5s. returned if rejected. At second examination: members, £10 10s.; if not a member, £21. In latter case £10 10s. are returned in case of rejection.	Diploma of college, £21; £5 5s. at first examination; after failure at this examination candidate must pay an additional £3 3s. before being again admitted. At pass examination, £15 15s. paid, and £5 5s. retained on each failure.	For the four examinations, £10 10s.; re-examination after failure, £3 3s.
Rejected Candidates.	After first, second, and third examinations, readmitted after not less than three months. Candidates are re-examined in subjects in which they have been rejected.	After rejection at first or second examination, not again admitted until end of three months; after third examination, not till end of six months. Candidates are re-examined in subjects of rejection.	After rejection at first examination, candidates not again admitted for six months; after second examination, not till end of one year, unless Court of Examiners shall otherwise determine.	After rejection at primary examination, three or six months; after rejection at second examination, six months, unless the Court of Examiners shall otherwise determine.	Are readmitted after three or six months, as may be directed; and are re-examined in subjects in which they failed, except surgery, in which candidates are re-examined entirely.
Candidates (1) Exempted from Certain Portions of the Examinations; or (2) Admitted under Special Regulations.	(1) At first examination candidates who have passed a University examination for a degree in medicine in any subject of the first and second parts. (2) Holders of Colonial, Indian, or foreign qualifications entitling to practice, admitted to second and third examinations on production of evidence of age and of proficiency in vaccination.	(1) Candidates who have elsewhere passed examinations in the subjects of the first and second examinations; who have obtained a degree in surgery at a recognized university; who have passed an examination in surgery at a college of surgeons; who have obtained foreign qualifications entitling them to practice medicine or surgery.	(2) Members are admitted to first examination at any time after receiving diploma; to second examination at any subsequent time, if engaged not less than six years in study (or practice) of profession; in case of graduates in arts of a recognized university, five years.	(2) *a* Candidates who have studied in Scotland or in Ireland, or at recognized foreign or Colonial universities. *b* Members or licentiates of the other colleges of surgeons; and graduates in medicine or surgery of a recognized university, admitted to professional examinations on production of the necessary certificates and diplomas.	At first and second examinations, candidates who have passed equivalent examinations before any examining body recognized by the Medical Council.

PERNAMBUCO has had 4,000 cases of small-pox.

THE *Lancet* and the *British Medical Journal* of September 6, are students' numbers; and in them the reader can find fully detailed information concerning the medical schools and hospitals of the United Kingdom. The *Lancet* also contains some data concerning similar institutions on the Continent. Neither devotes any space to the American schools; but this lapse is amply filled by our present number.

CONSIDERABLE material has been prepared for this number in excess of the space at our disposal. This will be printed in next week's TIMES AND REGISTER. Included in this surplus matter is a digest of the State laws relating to medical practice, some talk about text-books, and the history of several very spicy interviews between Messrs. McCoy and Wildman and a member of our editorial staff. Copies of this supplementary number will be sent to any address on receipt of ten cents.

Tabular View of the Regulations of the Medical Examining Bodies in Scotland.

(Taken from the "British Medical Journal," Sept. 7, 1889.)

	Royal College of Surgeons of Edinburgh.	Colleges of Physicians and Surgeons, of Edinburgh, and Faculty of Physicians and Surgeons, of Glasgow.	Faculty of Physicians and Surgeons of Glasgow.		Universities of Scotland.
	Diploma.	Conjoint Examination.	License.	Fellowship.	Bachelor of Medicine and Master in Surgery.
Age Required.	Twenty-one.	Twenty-one.	Twenty-one.	Twenty-four.	Twenty-one.
Evidence of General Education before Commencement of Professional Study.	Having passed a satisfactory preliminary examination.	Having passed a preliminary examination, and being registered as a student by the Medical Council.	Having passed a preliminary examination and being registered as a student by the Medical Council.	Registration as a student by the General Medical Council.	Preliminary examinations by University, or Degree in Arts, or equivalent examinations.
Duration of Professional Study.	Forty-five months, including four winter sessions, or three winter and two summer sessions at a recognized school.	Forty-five months, subsequent to registration, including not less than four winter sessions at a recognized medical school.	Four years; including four winter sessions, or three winter and two summer sessions at a recognized school.	Six years; graduates in Arts or Science, five years.	Four years; one year being in the University, and another in the same or some other University.
Courses of Lectures, etc., Required:					
Anatomy.	Six months.	Six months.	Six months.	Two winter sessions.	One hundred lectures.
Practical Anatomy.	Twelve months.	Twelve months.	Twelve months.	Eighteen months.	Course of same duration.
Physiology.	Six months.	Six months.	Fifty lectures.	One winter.	One hundred lectures.
Pract'l Physiology.				Three months.	
Chemistry.	Six months.	Six months.	Six months.	One winter.	One hundred lectures.
Pract'l Chemistry.	Three months.	Three months.	Three months.	Three months.	Three months.
Materia Medica.	Three months.	Three months.	Three months.	Three months.	One hundred lectures.
Pract'l Pharmacy.	Three months.	Three months.	Three months.	Three months.	Three months.
Natural History (Zoology).	Recommended.	Strongly recommended.			Fifty lectures.
Botany.	Recommended.				Fifty lectures.
Pathology.	Or attendance in *post-mortem* room, three months.	Three months lectures; or attendance in *post-mortem* room of General Hospital.	Three months; lectures or attendance in *post-mortem* room.	Three months; and Practical Pathology three months.	One hundred lectures; or Pathological Anatomy three months, with supplementary course of Medicine or Clinical Medicine.
Medicine.	Six months.	Six months.	Six months.	Six months.	One hundred lectures.
Clinical Medicine.	Nine months.	Nine months.	Six months.	Twelve months.	Six months (one hundred lectures, Edin.), or two courses of three months.
Surgery.	Six months.	Six months.	Six months.	Six months.	One hundred lectures.
Clinical Surgery.	Nine months.	Nine months.	Nine months.	Twelve months.	Six months (one hundred lectures, Edin.), or two courses of three months.
Practical Surgery.				Three months.	
Midwifery and Diseases of Women and Children.	Three months; and not less than six cases of labor.	Three months; and not less than six cases of labor.	Three months; at least six cases of labor.	Three months; twenty cases of labor.	One hundred lectures; three months' Midwifery Hospital, and six cases of labor.
Med. Jurisprudence	Three months.	Three months.	Three months.	Three months.	Fifty lectures.
Hospital Practice and Hospital Appointments.	General Hospital, twenty-four months; Public Dispensary, six months; or Visiting Assistant, six months.	General Hospital, twenty-four months; Public Dispensary, six months; or three months dispensary, with three months' hospital clerkship; or six months pupilage with a registered practitioner.	Public Hospital, twenty-four months.	Twenty-four months.	General Hospital, two years; Out-practice of hospital, or of dispensary, or registered practitioner, six months.
Vaccination.		Six weeks.			
No. of Examinations.	One; final only. Candidate must have qualification in Medicine.	Three.	One; final only. Candidates must have qualification in Medicine.	Two; each examination may be divided.	In Edinburgh and Glasgow, four; in Aberdeen and St. Andrews, three.
First Examination, When it May be Passed; Subjects.		End of first complete year; Chemistry, Elementary Anatomy, and Histology.		Anatomy and Physiology (including Histology and Embryology); Chemistry (unless already passed).	
Second Examination; When it May be Passed; Subjects.		End of summer session of second complete year; Anatomy, Physiology, Materia Medica, and Pharmacy.		Candidates ten years qualified are exempted from this examination.	
Final Examination; When it May be Passed; Subjects.	After last winter session; Surgery (including Operative Surgery and Surgical Pathology), Clinical Surgery, and Surgical Anatomy.	End of full period of study: Medicine (including Therapeutics, Medical Anatomy, and Pathology), Clinical Medicine; Surgery (including Surgical Anatomy and Surgical Pathology), Clinical Surgery; Midwifery and Gynæcology; Medical Jurisprudence and Hygiene.	Surgery and Clinical Surgery, Clinical Medicine, Midwifery, and Medical Jurisprudence.	Pathology and Medicine (Systematic and Clinical) or Pathology and Surgery (Systematic, Operative, and Clinical).	

Tabular View of the Regulations of the Medical Examining Bodies in Scotland.—Continued.

	Royal College of Surgeons of Edinburgh.	Colleges of Physicians and Surgeons, of Edinburgh, and Faculty of Physicians and Surgeons, of Glasgow.	Faculty of Physicians and Surgeons of Glasgow.		Universities of Scotland.
	Diploma.	Conjoint Examination.	License.	Fellowship.	Bachelor of Medicine and Master in Surgery.
Fees Payable.	£15 15s.; in case of rejection, £4 4s. retained.	First and second examinations, each £5 5s.; additional, after rejection in all subjects, £3 3s.; after partial failure, £2 2s. Third examination, £15 15s.; after rejection, additional, £5 5s.	£15 15s.; in case of rejection, £4 4s. retained.	First examination, £8; second, £12; on admission, £5.	£22 in Edinburgh. £21; £5 5s. each of two examinations, £10 10s. at last examination of three; Glasgow, four fees of £5 5s.
Rejected Candidates.	Not readmitted under three months.	At either examination, not readmitted before three months; not re-examined in subjects in which an absolute pass has been obtained.	Not readmitted under six months.		Not readmitted until after another year of medical study, or such portions of a year as may be prescribed by the examiners (unless he has studied during another year two of the subjects).—*Edinburgh.*

PAPOID IN GASTRIC CATARRH.

WE will take it for granted that the proper regimen has been laid down for the patient; he has been told what and how much he is to eat, at what hours, with what beverages the food is to be diluted. He has been cautioned against the bad habits of eating and drinking that have originated the disease. The questions relating to alcohol, tobacco, exercise, and sleep, have been settled. What now remains for medicines? The therapeutic nihilist may say nothing. We say much. Catarrhs once firmly fixed in the mucous membranes have no tendency towards a cure, even when the exciting cause has been removed.

There are several drugs that have distinct remedial effects in this affection. We do not pretend to enumerate all, but simply those that have given the best results in our hands. Rhubarb and ipecacuanha, given in minute doses, have the property of stimulating the gastro-intestinal glands to secretion. The product is a normal secretion, and when the stomach is oppressed by the presence of unhealthy mucus, by the use of these drugs a healthy secretion may be gradually substituted. It is, however, of importance that the stomach should first be freed from the viscid mucus in it, that the medicine may reach the tissue it is designed to influence. The twentieth of a grain of ipecacuanha may easily be enveloped in a teacupful of mucus, so that the drug is entirely lost. For this reason we advise the use of hot water with alkalies, to be taken an hour before meals, the ipecacuanha following in about fifteen minutes. The effect of both is thus obtained before the ingestion of food begins.

If the secretion of mucus be profuse, the oxides of zinc and of silver are of value. They are astringent and alterative, and in relaxed states of the mucous membrane especially exert a powerful influence in restoring it to health. In one case where lavage alone had failed to relieve dilatation, the patient recovered practically under the use of one-quarter grain oxide of silver and two grains oxide of zinc, taken before each meal.

But there is another agent representing another and entirely different therapeutic principle that bids fair to prove of more value than all those hitherto mentioned. These are designed to prepare the stomach, or to directly and antagonistically attack the disease. The principle we now refer to is that of *coaxing* the organ back to its duty. He is the best physician who can restore health to a diseased function, or organ, with the least disturbance of the body, and following most closely the processes of nature. The use of ipecac approaches this; but there is another and better way of getting at the difficulty. It has been noticed by every physician who has used pepsin, that the amount of increased digestion is out of all proportion to the direct action of the quantity of pepsin given. This is due to the fact that when digestion is once started by artificial means the stomach will continue the process, which it was not however able to set in operation independently. We speak now from observations made clinically, and not from physiological experiment. It is obvious that a continuation of this action tends to re-establish the regular performance of natural digestion; in fact, it is, as we have fancifully termed it, coaxing the stomach back to its duty.

Pepsin, active in an acid medium, is obviously not the drug to be used here, as the digestion carried on in the stomach during the important first quarter or half hour, is alkaline. Here the saliva completes the action began in the mouth, and continued in the stomach, until stopped by the flow of the acid gastric juice. Until that occurs, pepsin is inactive; or it may be rendered permanently inert by the action of the alkali. Pepsin, then, is not a certainly efficient agent when given before meals.

We have here, then, a clearly-defined need for a remedy, and fortunately we have that indication accurately fulfilled by *Papoid*. For in this substance we have a powerful digestant which will begin the work of peptonizing albumen in an alkaline medium. It does not interfere with the action of saliva in converting starch into grape sugar, nor does saliva interfere with papoid. The formation of peptone is commenced, and when the natural stimulus of food has caused the secretion of the gastric juice, the pepsin simply continues the process until completed. Nor is there any abrupt transition from papoid-alkaline to pepsin acid peptonization, for, according to Clayton, papoid continues its action even after the secretion of acid has commenced.

If the secretion of abnormal mucus in the stomach is excessive, it is well to give the hot, alkaline water half an hour before meals, and the papoid immediately before eating. But in most cases this is unnecessary, as the papoid itself quickly rids the stomach of mucus. It may then be given in the form of tablet; say in the dose of two to five grains, with a grain of potash or soda, and a minute amount of ipecacuanha or rhubarb. Papoid is harmless to the healthy stomach, and, being of vegetable origin, is free from organic ptomaines. In acid dyspepsias it may be given with larger doses of potash; or, it may

be given in combination with diastase. Maltine and papoid form an excellent combination. Whether the asserted virtues of papoid, in dysenteric and diarrhœal diseases and in intestinal parasites, depend solely on its digestive powers or not, I am unable to decide from personal experience.

There is another use of papoid that, though not strictly physiological, will still be of value as long as human nature continues as degenerate as at present; for it is lamentably true that man still hankers after the flesh-pots, and, though he has more red corpuscles in his blood than are at all good for him, he will imperil his prospects of longevity by eating big suppers of rich, nitrogenous viands, instead of restraining himself to the fruit and parched peas which a correct appreciation of his physiology indicates as the proper diet. Such men *will* disregard our warnings and attend lodge suppers, wine parties, etc., where all sorts of rich food are taken. Now, papoid appears especially powerful as a digestant of just such food; croquettes, salads, game, are powerfully acted upon by this agent. Especially is this the case with that intractable delicacy, lobster. Men who like lobster like it very much indeed; but we often see them looking with longing eyes upon this, to them, forbidden fruit. Papoid digests lobster in any form with remarkable rapidity. Even when lobster and milk have been taken together, and the result is a hard, compact mass of casein, papoid will disintegrate it in a very short time. To these good livers, therefore, we can allow an indulgence in their favorite food, if they slip a few tablets of papoid into the vest pocket before setting out for the "lodge." It must not be forgotten that the effects of too great a digestion of food are more dangerous than the attacks of indigestion, unless the patient will diet himself properly before and after his feast.

Book Notices.

A Dictionary of Practical Medicine. By Various Writers. Edited by James Kingston Fowler, M.A., M.D. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut Street, 1890. Royal octavo, pp. 942, half morocco.

In this work Dr. Fowler has presented in a concise form an epitome of subjects comprised under the head of Practical Medicine and Gynecology. The arrangement resembles that of Quain, but is more condensed. Each article treats of the subject under the heads of Symptoms, Course, Diagnosis, Prognosis, Pathology, Morbid Anatomy, Etiology, and Treatment. From the very limited investigation we have been able to make (the book is fresh from the press), Dr. Fowler's work seems to be exceptionally well done; the matter is fully up to date, and the book is a valuable one for ready reference. The practitioner who has no time to "wade" through acres of print in search of practical information will find this book just what he wants.

A Manual of the Practice of Medicine. By Frederick Taylor, M.D., F.R.C.P. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut Street, 1890. Cloth, 8vo, pp. 895 Price, $4.00.

A concise account of the present state of medical practice, giving special attention to Symptoms, Diagnosis, Prognosis, and Treatment. Plenty of facts and not much theory. The book is a good one for students in their first course; to be followed by the more extensive works.

Wood's Medical and Surgical Monographs. Vol. 7. No. 2. 243 pages. Price, $1.00, or $10.00 per annum.

The present number of this valuable series contains the following papers: Morbid Blushing, its Pathology and Treatment, by Harry Campbell, M.D.; Alcoholism in Women, by Dr. Thomeuf; The Different Methods of Lifting and Carrying the Sick and Injured, by G. H. Darwin, M.D.; Treatment of Ingrowing Toe-Nail, by Joseph Amiard, M.D.; Chronic Bronchitis and its Treatment, by William Murrell, M.D.

Physicians' Leisure Library. No. 6. Containing Intestinal Diseases of Children. By A. Jacobi, M.D. Two volumes together. Pp. 266. Cloth, 50c.; paper 25c. each.

Dr. Jacobi is an authority on children's diseases, and his subject is one of the most important in the range of practical medicine. The reader will be amply repaid for his trouble in sending for this book.

A System of Oral Surgery. Being a Treatise on the Diseases and Surgery of the Mouth, Jaws, Face, Teeth, and Associate Parts. By James E. Garretson, A.M., M.D., D.D.S., etc. Illustrated with numerous wood-cuts and steel plates. Fifth Edition. Thoroughly revised, with additions. Philadelphia, J. B. Lippincott Co., 1890.

Oral surgery includes dentistry in a similar sense as it in turn is included by general surgery. The author says, in his preface, that dentistry, when practised disassociated from medical knowledge, is found to be of very little service to a community, and this suggestion is found so amply and irrefutably exhibited and demonstrated on his pages that no one will fail to give it his assent. A thought in connection with this is the pecuniary use to be made of the book here considered, by a great host of poorly paid and but partially employed country practitioners. The volume contains, as part of its contents, the full subject of practical dentistry, everything being told in such simple language and so exhaustively illustrated that, considering the incomes of the modern dentists, it would seem that here is the veritable bonanza of which so many poor physicians are in sore need. Dr. Garretson, being himself a surgeon, writes of his subjects as a surgeon would be expected to write. Every matter is presented from the stand-point of general principles, consequently is free from involvement and obscurity. If any money-worried practitioner desires to turn shekels, after a legitimate manner, in the direction of his needy pockets, we suggest that he think, not only twice, but many times, before turning from the possibilities contained in what is here offered him.

Still another thought in connection with this work is an estimate of the good judgment, and as well the practical use made of the nation's money, exhibited in the purchase of an edition, by a late surgeon-general of the army, and its distribution to all the army posts. An army surgeon knows exactly how to use such knowledge as is afforded in a book like this, needing alone the hints and illustrations it offers in order to put them to an immediate practical use, while question, as to the need for such practice among soldiers, is not so much as open to consideration. This use of the volume by army surgeons seconds our suggestion as to its utilization by the country physician. While this work is the chief text-book of the Philadelphia Dental College and Oral Hospital, yet its meaning includes the professions of dentistry and medicine at large. It constitutes one of the series of the medical text-books of the Lippincott house.

The Times and Register.

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PAGE

ORIGINAL ARTICLES.

THE WEST INDIES AS A SANITARIUM. By William F. Hutchinson, M.D. - - - - - 277
REVIEW OF PROGRESS IN MEDICAL AND SURGICAL ELECTRICITY. By William R. D. Blackwood, M.D., Philadelphia - - - 279
A PLEA FOR THE MORE FREQUENT USE OF CHLOROFORM IN OBSTETRICS. By J. F. Baldwin, A M., M D., Columbus, Ohio - 281
ATRESIA OF THE EXTERNAL AUDITORY MEATUS. By Seth S. Bishop, Chicago, Ill. 283
ON MEAT JUICE AND BOVINE BLOOD IN THERAPEUTICS. By Frank Woodbury, A.M., M.D. - - - - - - - - - - - - 285
ANTISEPTIC MIDWIFERY. By F. O. Donohue 286

SOCIETY NOTES.

AMERICAN ORTHOPÆDIC ASSOCIATION - - 289

THE POLYCLINIC.

For Eczema of Hands. *Stelwagon* - - - - 290
Reappearance of Influenza. *Waugh* - - - 290

EDITORIALS.

THE PRODUCTION OF IMMUNITY FROM TUBERCULOSIS - - - - - - - - - - - - 291
QUACKS AND THEIR METHODS - - - - - 291

PAGE

ANNOTATIONS.

An Extraordinary Circular - - - - - - - 293
Resignation of Prof. Samuel G. Dixon - - 293
The Struggle for Existence - - - - - - - 293
The Dosing Mania - - - - - - - - - - 293

LETTERS TO THE EDITOR.

Absence of Kidney. *Pelton* - - - - - - 294
Dried Beef Poisoning. *Bidwell* - - - - - 294
Anoma'ous Cases in Practice. *Stephens* - - 294

BOOK NOTICES.

Drs. Bourneville and Bricon's Manual of Hypodermic Medication - - - - - - - 295
Virchow's Archives of Pathological Anatomy, Physiology, and Clinical Medicine - 295

THE MEDICAL DIGEST.

Chinese Remedy for Diphtheria. *Prov. Med. Jour.* - - - - - - - - - - - - - - 290
Chronic Broncho Pneumonia. *Woodbury* - 290
FRENCH NOTES. *Roussel* - - - - - - - 295
Cerebral Abscess With Epileptic Attacks Cured by Trepanning. *Schmid* - - - 295
Counter indications of Antipyrine. *L'Union Médicale* - - - - - - - - - - 295

PAGE

Creasote in the Treatment of Diseases of the Respiratory Organs. *La Bulletin Médical* - - - - - - - - - - - - - 295
Injection for Gonorrhœa. *Brou* - - - - 296
Pomade for Alopecia. *Monin* - - - - - 296
Wine of Cascara Sagrada - - - - - - - 296
Aristol in Gynecology. *Gaz. de Gyn.* - - 296
The Induction of Artificial Labor. *Calderini* - - - - - - - - - - - - - 296
The Vaginal Secretions. *Doderlein* - - - 296
Trichloracetic Acid as an Astringent and Caustic. *Ehrmann* - - - - - - - - 296
Treatment of Burns. *Bardeleben* - - - 296
Prepared Cotton for Burns. *La Méd. Mod.* 297
TRANSLATIONS. *Hutchinson* - - - - - - 297
Amenorrhœa *Galogni* - - - - - - - 297
Colloquial Latinists. *Bacelli* - - - - - 297
Removal of a Portion of Liver Filled with Hydatid Cysts by an Elastic Ligature. *Terrillon* - - - - - - - - - - - - 297
A Study of the Therapeutic Action of Theo-bromine and Diuretine. *Mme. Koundjy Pomerantz* - - - - - - - - - 297
MEDICAL NEWS AND MISCELLANY, 297
ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - - 300
NOTES AND ITEMS - - - - - - - - iv, xiv

Original Articles.

THE WEST INDIES AS A SANITARIUM.

By WILLIAM F. HUTCHINSON, M.D.

SUNNY climes, equal temperature of torrid heat, beautiful scenery, and all magic of change, cannot always prolong life.

It is especially important, in choosing a locality for a sick man for whom change is deemed advisable, to consider carefully what effect certain climates have upon certain classes of disease, and to learn as accurately as may be, the environment to which he will be subjected when once there.

I use the word subjected because I mean it. It is a serious matter for any one who is unaccustomed to travel, indeed to almost every one, to pull up stakes that have been driven deep and long, and start; so serious that most who go must stay for a time, if they like it or not.

In a previous chapter I have spoken of a few diseases that are benefited by winter change to tropical climate with temporary residence therein, and now propose to allude to others that should not be sent thither, as experience shows that they are unlikely to be improved by the trip.

Alluding to what I have there said, I may, perhaps, be pardoned for repeating a statement that a careful selection of climate is absolutely essential to climate cure.

More than once, in fact more times than I can now remember, I have seen sick people banished from home, friends, and the delights of their own fireside, without the smallest chance of permanent improvement following the change, either for the purpose of relieving some tired doctor of an incurable patient, or to gratify the wishes of the patient himself.

It is indeed a pitiful sight when one of these poor fellows steps ashore at Nassau or Barbados, with every sign of incurable consumption in his emaciated form and lustreless eyes, and to think that the only possible way in which he may see his native land again is by vision from the next world.

The other day I stopped such a man as this in the street at St. Kitts. "Where do you come from," asked I. "From Philadelphia," he answered. "Yes? Do you come out here for your health?" (an unnecessary question, by the way). "Yes, by the advice of my doctor," (naming a well known specialist of that city). "Had your doctor ever been in the West Indies, do you know?" "I don't think he had, sir, because when we were talking about the islands, and I wanted to know which one would be best for my peculiar condition, he answered, 'It does not make any difference, they are all just alike, go to which one you choose and make yourself comfortable.' So here I am, and so far as I can see, without much chance of either making myself or being made comfortable, in this island, at least."

"Do you know, sir," he continued, "if any of the other islands are better than this for a man whose lungs are half gone?"

"Why, yes," I replied, "this is probably the worst of all, for here there are neither hotels nor any means of passing away time excepting praying to the good Lord to let you live long enough to get back home again. You should have gone to Barbados, where the air is much dryer than here; where there is a choice of three or four hotels, and where there is plenty to occupy your time, even if you should want a change of occupation every day."

"Well," he said, "that's all these doctors know about things. If mine had told me what you tell me now, I might have been comfortably settled in Barbados by this time, instead of looking around St. Kitts for something to eat."

"How long have you been here?" I asked.

"A week to day."

"Are you feeling better, and does the air agree with you? Do you cough less, and is your appetite

better?" were some of the questions I asked this poor fellow, in the interests of the sick men to come after.

"I think," was the reply, "that I do cough less; but then the weather at home, when I left, was simply awful, and the perfection here of the temperature is such a change that one must be well-nigh dead not to gain by it; but I find that the constant perspiration brought on by the temperature, even without the smallest exertion, and which continues night and day, is making me sensibly weaker, and I fear that I have not done right in coming away from home at all."

I could not find it in my heart to tell the poor fellow that I thoroughly agreed with him. I have not heard since what became of him, but have no hesitation in saying that it was a serious mistake to send a case of consumption in any form or at any stage, except perhaps the very first of bronchial irritation, to these islands of the south; one reason being that the temperature, an absolutely permanent one for certain seasons of the year, is always sufficiently high to produce perspiration, which in a well person, or one affected by certain renal diseases, is a good thing, but which in a consumptive weakens the patient.

The warm, soft air, laden with moisture from surrounding sea, softens down diseases of lung tissue with astonishing rapidity. Cavities form to a rapid extent there, broaden swiftly, and destruction of these organs proceeds at a pace redoubled by the climate.

In all my twenty years' experience among the tropics, I have never seen a case of tubercular disease improved to any extent or in any permanent way by a residence therein, temporary or otherwise. On the contrary, it has been my sad lot to aid in preparing for the grave more than one lonely friend who had left all that life holds dear behind, in order that he might seek a futile chance for life; and I cannot say in too strong words, nor with too emphatic accents, that it is worse than useless to send consumptives to these islands. It is murderous.

I do not, in this statement, include such diseases of the throat as are catarrhal, irritative, or depend for continuance upon malignant northern winters. On the contrary, all these forms are rapidly improved, and in many cases permanently cured by the change.

Loss of voice, especially dependent upon catarrhal inflammation of the larynx or chords, disappears like magic. Rough accents soften down beneath the influence of the warm salt air and continuous moisture, and the change seems incredible to the sufferer.

Pains that go shooting about the chest, increased by deep inspirations into acute agony, and neuralgia, dependent upon pleuritic adhesions, also disappear after a short time.

Forms of cough that are dependent upon throat irritation, whether the same be nervous or follicular, do not last in this climate more than twenty-four hours; in fact, they are gone so quickly that it is a matter of wonder with the patient when they disappear, and he asks himself if he was not mistaken in supposing he had any.

It is, therefore, my deliberate opinion that of the two classes of diseases called consumption in the north, one being true tuberculosis and the other functional disease, or nervous throat disease, the first has no business in any tropical climate, but should be sent inland to some place like Colorado. The second does well here if sufficient time be given to consummate the cure that a flying trip only gives an opportunity to have commenced.

Tropical islands are very bad places for rheumatism; the same constant moisture that plays so large a part in curing nervous difficulties produces and intensifies all forms of rheumatic inflammations. It is a common disease. I cannot state the exact percentage, but from the number of natives that I have seen complaining of it, I am satisfied that it is a staple malady.

Probably a larger percentage of these cases than with us, are muscular, for the reason that there are no sharp changes of temperature to intensify a passing irritation into acute inflammation; but they are sufficiently annoying. Three times have I been prostrate with lumbago which was difficult to be rid of, and in each case it followed a seemingly trifling cause.

The skin is constantly in a state of high activity; at no time, night or day, is it dry, and the result of even a slight breeze striking this wet body is to lower its temperature a little. It is but a trifle, probably not felt at all, or, if felt, but eagerly welcomed as a pleasant relief from previous heat.

You do not even draw the loose wrap over your evening dress, or take the trouble to cover bare shoulders with more than a lace veil, but when next morning comes, there is an acute attack of lumbago to face. You are tied to your bed as if every muscle when put in motion was a red-hot bundle of wires. Nothing but absolute quiet can prevent acute agony, and this is as hard to cure in the tropics as it is here, even for doctors as hard to bear. It can, however, be totally avoided, as I have learned by experience during the last three years, by wearing pure woolen underclothing of medium weight next the skin, and changing it as often as it gets wet with perspiration. The latter is as important a precaution as the former, for wet flannel is not in any degree an improvement over dry cotton.

So far as cases of acute or articular rheumatism are concerned, they do not do well when brought here, and I advise the selection of a different climate for them.

Diseases of the eyes are not uncommon in these islands, which are as a rule composed partly of coral, some of them entirely so; and the intense whiteness of streets, buildings and beaches, in full glare of vertical sun, is bad treatment for those that come from abroad.

It is necessary to protect these sensitive organs everywhere in the tropics, by shading them from the sun with umbrellas whose lining is green, and by constantly wearing blue or smoked goggles. Neglect to follow this advice will be almost sure to be followed by some form of temporary blindness. If anything of this kind should occur, a mild astringent eye lotion with seclusion from the sun for a day or two, will be curative. If there is any tendency in a patient to inflammatory conditions of the eye, he must be thoroughly impressed with the necessity of great additional care when he goes to the islands.

Although zymotic diseases are not common in the islands, they still exist, modified in a large degree by the almost perfect drainage that exists everywhere, by a profusion of pure water, a comparative disuse of meat as a diet, and constant life in the open air. Nevertheless, those that are contagious may be communicated, so that a malignant case may develop in a stranger from a mild one in a native.

I recall as sad a case of this nature as anything that has come within my ken for many a year, that happened during the past winter at the island called St. Eustatius. A retired sea captain, who had been living for some years in the city of New Bedford, and whose children had died, to the number of five, from chest diseases dependent upon the malignant climate of New England, persuaded his wife to take the three

remaining ones and escape the wrath that he feared was to come when the cold winter of 1889 began.

They came to these beautiful islands where there was every promise of continuous health. A short time after their arrival, the captain noticed that several of the children, with whom his own were in the habit of playing daily, had sore throats. He was sufficiently on the alert to make inquiries as to the nature of this sore throat, but could find no history of anything serious. A few days passed of comfort and happiness, and the parents congratulated themselves upon their wisdom on making the change.

One bright morning their little boy awoke with a high fever and considerable pain in the throat. The mother was alarmed at once, and sent for the medical man, who reassured her by saying that it was probably a similar case to those around, none of which had proved fatal.

The next day the child grew rapidly worse, and the little girl was attacked in the same way.

The parents' alarm redoubled, and the medical man still assured them there was no cause to worry.

The next day the third child was attacked, and this was too much for the mother to stand. A bed was procured, and the family moved across to St. Kitts, a couple of hours sail across a quiet sea.

Once there, the surgeon-in-chief, Dr. Branch, promptly pronounced the case malignant diphtheria, and within three days more two of the children were dead, and the third in a fair way to recover.

I do not think in all my wandering I have ever listened to a more pitiful story than this told me by the bronzed old captain, amidst fast flowing tears from his grieving wife.

Disease of the digestive organs are only common here amongst strangers, who persist in bringing to the islands northern appetites, and in demanding that they be supplied by northern food. They eat as much food in Martinique as they do in New York, and sit at the table of the hotel wondering at the quantity of fruit and vegetables devoured by those to the manner born.

It must be remembered that the tropics furnish sufficient to satify the body, when the inner fires are fed with fuel that burns slowly, and abstain from loading the system with anything requiring much effort to get rid of. One is not often comfortable until the blood is thinned down from its sluggish northern flow, and only then begins to feel well when to the thinness is added a perceptible acidity.

It is my habit, as soon as I arrive in the tropics, to begin eating fruit in great profusion, both at the early morning meal and through the hours of the forenoon, abstaining entirely from meat. When I have taken so much as to produce a continuous acid taste in the mouth, and a feeling as if the teeth were on edge every time an acid touches them, I restrict myself to two oranges and a tumbler of cocoa-nut milk in the early morning, eating meat with great care, living chiefly on vegetables and fish. In this way I avoid altogether all dyspeptic derangements, and am able in a few days to stand the heat and prolonged exertion as well as the natives.

I think strangers would do well to follow my example in this respect, at least to some extent.

Should indigestion or dyspepsia follow the injudicious use of meat, it is much better to apply to one of the thorough qualified native physicians than to take drugs from the pocket-case that invariably accompanies travelers.

One of the ladies of my party carried two medicine cases, either of which contained a greater variety and better selection of drugs than the ship's chest, and when we returned, both were in a state of depletion.

In almost every one of the islands there are native remedies unknown in the United States, that are much better fitted for those localities than imported ones, and it is therefore better to have a native doctor.

GUADALOUPE, W. I., March, 1890.

REVIEW OF PROGRESS IN MEDICAL AND SURGICAL ELECTRICITY.

By WILLIAM R. D. BLACKWOOD, M.D.,
PHILADELPHIA.

HIGH-TENSION FARADIC CURRENT IN GYNECOLOGY.—Böse employs this form of current extensively in pain associated with oöpharitis. His direction is to place the anode in the vagina, and the cathode over the abdomen by a large plate. He also says his electrode is bi-polar. He also uses it in pain due to exudates, which is relieved thus; but no effect toward absorption in such cases is found, nor in subinvolution. Although instances are rare of resolution of pelvic exudates, yet occasionally I have had complete disappearance occur under Faradism alone—galvanism being, of course, the main reliance where it is used strictly by the physician. Two other errors may be noted: First, there is no anode or cathode in faradic poles, the current being alternating. Second, large abdominal plates in ovarian disorders are useless; the current must be accurately localized over the ovary by either electrode. Again, bi-polar electrodes are unfitted for such work; but he may mean a *divided* electrode, one to each ovary simultaneously.

Munde in a recent paper urges galvano-puncture in lieu of the Apostoli method in fibroid, instancing four cases thus cured, whilst in eight no cure resulted from the current without puncture. He urges the trial of electricity in all cases aside from abscess, prior to laparotomy.

Results of Electricity in Extra-uterine Pregnancy.—The subsequent history of fifty cases of ectopic gestation treated by electricity are narrated in the *American Journal of Obstetrics*, No. 2, 1890. Twenty-three remained in good health out of one section numbering twenty-five. Ten per cent. of the other division had died; in seven a small tumor remained. Suppuration had not occurred in any. Rupture of the sac did not result in any. Puncture is condemned. He gave no opinion of the desirability of the method beyond decrying it after the third month.

In nine cases operated on by myself, the women all did well, without any complication whatever, the last being done three years ago at Westfield, N. J. Faradism was employed at very high strength as the fœticidal agent, and galvanism was used subsequently to procure absorption, *which it did positively and completely.* The diagnosis was made in every instance by at least two physicians in addition to my myself, and in each case expert opinion was consulted.

External Currents in Laryngeal Disease.—Dr. Th. Clemens considers the larynx as more readily accessible to electric applications than any other organ, and he suggests (*Therap. Monatshefte*) its use in syphilitic sclerosis, growing indurated papilloma, catarrh, and hyper-secretion. Intractable spasmodic cough gives way readily to Faradism, and transportation (galvano-osmosis) of medicaments is easily produced under galvanism.

Electric Light in Empyema.—Voltolini employs an incandescent lamp of low voltage (5 to 10) within the

mouth, the lips being closed. When the current is turned on, and the room darkened, the antrum becomes translucent—so he says; but if empyema be present the effect is not obtained. Heryng lays stress on this point as aiding diagnosis. I have not found the effect to follow buccal illumination in any of a number of experiments; but this may be because the Prusso-Germans are not constructed on the same models as Philadelphians (Megalocephalitis).

Electricity in Goitre.—Marand describes a case in which alternate electrolysis and Faradism produced complete cure of a large goitre, which, however, was not associated with exopthalmos. Negative puncture was employed, and recovery ensued in six weeks.

Elephantiasis Treated by Electricity.—Silva Aranjo refers to the value of this agent in the disease named, and from an experience of many years in Rio Janeiro, comprising over four hundred cases, he relies on electricity as an efficient aid to other measures in any case, and as a specific in many. He claims absolute cures in a number of instances.—(*Atlas des Malades de la Péan, 3 fas. 1889.*)

Treatment of Cancer by Electricity.—Dr. Inglis Parsons writes to the *British Medical Journal* to say that usually: in his experience, the repetition of electric treatment is unnecessary. His only reason for operating more than once in any case was because the growth was too large to be gone over at a single sitting. He takes the ground "that cancer is probably due to an escape of healthy cells from the control of the nervous system," as stated in the journal quoted, on April 27, 1889.

Application and Action of Electrolysis on Solid Tissues.—This is the preferable method when one wishes to act on subcutaneous tissues without injury to the skin. Kuttner has used this method in nine cases of struma, with the result that two were cured and five were very much improved. Electrolysis is best adapted to the large, soft, strumous tumors, and twenty or thirty séances of ten minutes' duration, repeated every two or three days, generally suffice to cure. It can be used in naso-pharyngeal tumors, and in enlarged prostate; but as relief in the latter is generally needed immediately, this method can be used only when there is no hurry. Where it is not necessary to spare the overlying tissues, electrolysis has no advantage over the knife. In the treatment of naso-pharyngeal tumors, electrolysis is unrivaled. By this method the prognosis is favorable, while removal by other methods give 50 per cent. mortality. Stricture of the urethra is helped by it, but further experiments are needed in the case of thyroid tumors. It is especially adapted to local absorption or destruction of tissue, and in the latter respect is on a par with the galvano-cautery of Paquelin. The latter may be quicker and more intense in its action, but the former is easier to control, and does not destroy so much tissue.—*Deut. Med. Zeit.*

Injury to the Ear by Telephones.—M. Lannois, of Lyons, states that the healthy ear is not injuriously affected by this instrument, but that in any diseased condition varied troubles are causable, such as tinnitus, subjective noises, deafness, etc. These difficulties may disappear, from accustoming the ear to the phone, but at times not. They do, however, always when the apparatus is discontinued.

Injury to the Eye by Lightning-stroke.—Buller (Arc. Opthal. xvii. 2) reports a case in a young woman in whom nothing abnormal externally appeared. The pupil of the left eye did not respond as quickly to light as the other. Refraction was hypermetropic. Right eye V normal, left eye $V\frac{6}{15}$. Insufficiency of external recti due to probable injury. There was opacity in the left lens posteriorly, but not as in polar cataract. There were also floating opacities. Retina very pale. Vessels diminished in calibre. Circumvasculitis retina, choroidal pigmentation and dull orange-colored spots. Color sense impaired.

Uterine Electrode.—Dr. Eliza M. Mosher, of Brooklyn, N. Y., has devised an electrode, the intra-uterine portion of which is leaf-shaped, and she depends on this particular shape as a means of replacing versions. The instrument is made by Messrs. Haslam & Co., of Brooklyn, and it is illustrated in the *N. Y. Medical Journal* for June 22.

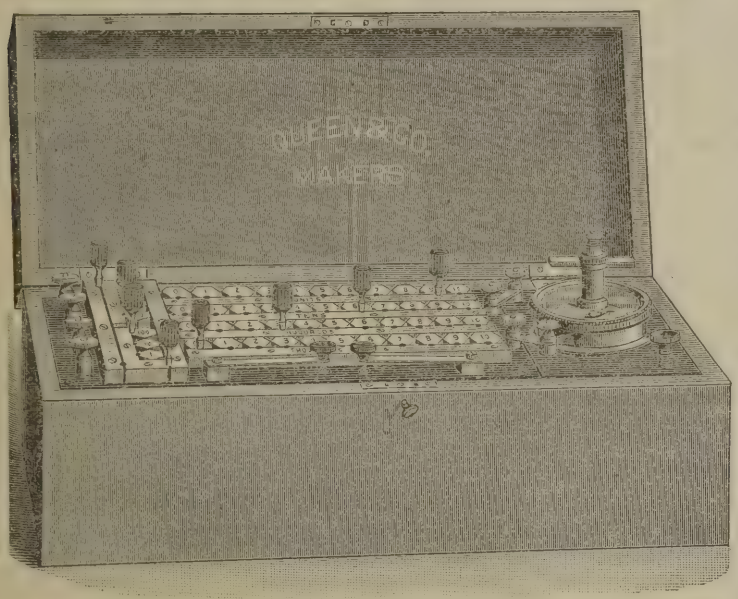
Chloride of Silver Elements.—The dry cells now produced by the Barrett Company are an improvement over the wet cells, and it is said that they wear longer. An important precaution is to be noted, however, viz., that argentic chloride is dangerous under certain conditions, and short-circuiting in the group of cells by metallic connection directly on the row of pins (on the number board) *may* cause explosion. Make a note of this in your memory. Other makers are adopting these elements.

The Phonograph in Medicine.—The phonograph, or graphophone, is suggested as a universal acoumeter by Lichtwitz, of Bordeaux, being superior to the watch, the tuning-fork, or the human voice, unless the latter is trained in all its inflections. Expert declamationists would be needed to prepare the cylinders.

New Portable Testing and Resistance Sets.—Our illustration shows the new portable testing and resistance set, now made by Messrs. Queen & Company, of Philadelphia. The best and most complete of the series is shown in Fig. 1. It is designed for work where considerable accuracy is required. The coils in this set are arranged in four rows, each row being made up of ten coils of the same denomination. The blocks in each row are numbered from left to right, and from zero to ten, while the longitudinal bars underneath have engraved upon them the denomination of the coils of that row. The connections of the coils are such that but one plug is required for each denomination. By inserting it in any block as many coils of that denomination are thrown in as may be indicated by the particular number engraved upon the block; thus, as the cut represents it, there are in circuit 369 ohms, *i. e.*, no thousands, three hundreds, six tens and nine units. Another special feature of this set is the arrangement of the bridge arms which are seen at the left; these are combined with reversing bars, so that the proportional arms may be instantly interchanged, an operation which is absolutely necessary in many special methods. An additional advantage is that but six coils are necessary in the bridge, instead of eight, as usual, to get the proportion of one to one thousand, or one thousand to one, thus making the set smaller and more portable. The bridge coils are one, ten, and one hundred on one side, and ten, one hundred and one thousand on the other. To effect this reversal two plugs only have to be changed. This use of the reversing arrangement in testing sets is said to be original with Messrs. Queen & Company, it having never before been employed except in the most expensive and elaborate laboratory instruments.

The coils are wound of the now famous platinoid wire, which has a very specific resistance, changing by but .0023 per cent. for each degree centigrade of temperature variation. They are adjusted by Professor Wm. A. Anthony to an accuracy of from one-fifth to one-tenth of one per cent., while the bridge arms them-

selves are adjusted to a still higher degree of accuracy. The galvanometer is a successful adaptation of a laboratory instrument to the needs of portable work, and is one of the most sensitive, complete and portable instruments ever combined in a set of this character. The wire is of several hundred ohms resistance, and is wound so as to have a maximum effect upon the needle; the needle itself is an astatic one and delicately suspended by a very fine cocoon fibre, so that there is practically no resistance to any deflecting force. By means of a very weak controlling magnet, sliding upon the suspension tube, the needle can be made almost perfectly astatic, and will show an appreciable deflection for currents as small as from $\frac{1}{3000}$ to $\frac{1}{5000}$ of an ampere; the brass box containing needle and coil is movable about a vertical axis, so that the needle can always be brought to zero, whatever the position of the box as a whole. The whole galvanometer lifts out of its position in the case, and can be used independently or in connection with other apparatus if desired, three leveling screws being provided for leveling when so used. By closing the cover of the box the weight of the needle is automatically taken from the fibre, and the latter protected from injury. The battery and galvanometer key are seen in the front of the box, and are independent of each other. The whole is mounted in a polished mahogany box, with leather handles and lock and key, and measures, when complete, but eighteen inches long by six and one-half inches broad.



Improved Law Cells.—The latest style of this cell is probably better adapted to the use of physicians than any other. It is greatly preferable to anything in the shape of dynamo currents, as being more readily controlled by those unaccustomed to high voltage, and much more inexpensive.

CREASOTE is being supplanted in the treatment of phthisis by benzosol, or benzoylortho-oxyanisol. This is a colorless powder, with little odor and taste, insoluble in water, soluble in ether, chloroform and hot alcohol. Walzer has used it in daily doses up to thirty-six grains, in powders or chocolate pastilles. No unpleasant symptoms were observed, but very favorable results obtained. He pronounces benzosol an agreeable and harmless substitute for creasote.

—*Provincial Medical Journal.*

A PLEA FOR THE MORE FREQUENT USE OF CHLOROFORM IN OBSTETRICS.[1]

BY J. F. BALDWIN, A.M., M.D.,
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FROM the time of Sir James Y. Simpson, of blessed memory, to the present, there have been obstetricians who have persistently urged the use of anæsthetics in labor. But the profession in general, with its inherent conservatism—a word that not infrequently is simply an euphemism for stupidity—has failed to be convinced, and here, as elsewhere, it must be by line upon line and precept upon precept that the desired end can be secured. I can add no new arguments nor statistics. Our own Reeve has exhausted all these. But, perhaps, I can add a little to the momentum which others have secured, and thus aid, though ever so slightly, in diminishing the agony of parturition.

I shall speak of chloroform alone, since ether is too slow in action, too irritating, and too inflammable, for obstetric work, while we have all, doubtless, been disappointed in chloral, cocaine and antipyrine. If any anæsthetic is to be used, chloroform is beyond question the one to be employed.

Let me give a case or two to illustrate:—Mrs. B., American, aged twenty-four years, primipara, of fine appearance and excellent health, but having a high strung nervous system and being very sensitive to pain, was confined under the care of two most excellent Columbus physicians. She was in labor many hours; the pains were hard, and, to her, agonizing. The pelvis had a somewhat contracted outlet, necessitating the use of the forceps, but no chloroform was given. The instrument was used by first one and then the other of the two physicians for over an hour before delivery was finally accomplished. The exquisite agony that that poor girl suffered can only be imagined; no words in any language can adequately describe it. The shock was great and convalescence retarded. For two weeks she could not fall asleep without the horrors of that occasion coming over her, like a terrible nightmare, and arousing her from slumber.

Two years later, I was called upon to attend her in her second confinement. The first stage was long, twenty eight hours, but the pains were borne bravely. When the second stage came on, chloroform was administered as needed. When it finally became evident that the forceps would be required, the chloroform was pushed a little more, the patient swung into position, and the child delivered after a somewhat prolonged effort. As soon as the child was born, the chloroform was removed, the placenta expelled, and the patient made dry and comfortable. She then became sufficiently conscious to be told that all was over, and that the child was of the desired sex, when she smiled delightedly, rolled partly on to her side and dropped to sleep. After sleeping for two hours, she awoke happy and comfortable; with no nightmare dreams of horror, and with no unpleasant recollection of the ordeal. This lady's husband was present on both occasions; he is a muscular Christian, and he would be a bold doctor who, called on any future occasion, would refuse to give her chloroform.

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[1] A paper read before the Ohio State Medical Society, June, 1890.

Another patient I have delivered of her three last children under chloroform, her two first having been born under the charge of other physicians and without chloroform. Her praises of the second method are unstinted and heartfelt. She has not had the feeling of post-partum exhaustion which she formerly experienced, and convalescence has been more rapid.

I report these two cases, not because they are unique, but because they are typical and show the marked contrast between the two methods.

I have carefully-kept statistics of over six hundred confinements. I did not give chloroform very frequently during my earlier years of practice, but I find I have given it in nearly thirty per cent. of the last three hundred cases, and in nearly sixty per cent. of the primiparous cases, and that the frequency of administration increases with each year.

We seldom need, in obstetrics, full surgical anæsthesia. I give my patient a folded handkerchief, and direct her to hold it out to me as soon as she feels the first indications of an oncoming pain. I pour a few drops, twenty or thirty, of chloroform upon the handkerchief, she claps it to her nose and inhales quickly and deeply, through both nose and mouth, three or four times. By this time, the pain is fairly on, but its keen edge is banished by the anæsthetic; she holds her breath and bears down, and then, as the pain passes away, drops off into a restful doze. This process is repeated as long as necessary, except that towards the last, at the supreme moment of agony, when the head is distending the vulva, I frequently push the drug to the surgical degree. For turning, or instrumental delivery, I always give full anæsthesia; except in the case of women, chiefly foreigners, having relaxed soft parts, capacious pelves, and nerves that seem to have no pain filaments; for such, anæsthesia is an unnecessary refinement.

Four objections have been offered to the use of anæsthetics in labor:

1. The pains will cease, and the labor come to a stand-still. I have seen the pains thus held in abeyance for fifteen or twenty minutes; but, at the end of that period, they would return with full force and the labor proceed. In case, however, they should not return, it would of course be necessary to withdraw the chloroform, and for it substitute condolence with the patient over her unfortunate idiosyncrasy.

2. Uterine contractions will be less vigorous, and we lose the voluntary contractions of the abdominal muscles; hence the labor will be prolonged. If only obstetric anæsthesia is produced, if we stop short of surgical anæsthesia, neither of these conditions will result. But, on the other hand, by the anæsthesia we secure a high degree of relaxation of the muscles of the perineum, and more or less yielding of the circular fibres of the cervix, and thus greatly reduce the resistance to be overcome. We thus, ultimately, gain more than we lose.

3. The child will be seriously affected. This is an old objection, long since refuted. No such result has ever been reported, and the objection has no physiological foundation.

4. We increase the danger of post-partum hemorrhage. I have said that I usually carry the anæsthesia to the full surgical degree just as the head is being born. I have never had a case of post-partum hemorrhage.

Fordyce Barker has given this matter special consideration, and expresses himself as follows: "I am strongly convinced that chloroform does not promote post-partum hemorrhage." He administered it in several thousand cases, and the only hemorrhages occurred when no anæsthetic was given.

In 1877, Dr. Wilson, of Baltimore, reported that he had given chloroform between two and three thousand times, during twenty-eight years of practice, without a single case of post-partum hemorrhage, or the slightest ill-effects following or attending its administration.

5. The inherent dangers of the chloroform itself. There is no drug, of any real virtue, in our entire materia medica, that can be administered to a lying-in woman with as much relative and absolute safety as chloroform. Whether this immunity is due to the cardiac hypertrophy, to the cerebral congestion, to the physiological antagonism of the pain itself, or to something else, or to some two or more of these conditions, I do not know. But no fact in medicine is more clearly established than that this immunity exists. Chloroform has been given to hundreds of thousands of lying-in women, and the records may be challenged to authenticate a single fatal result when the drug was administered by a physician.

There is no higher authority, in this matter, than Dr. J. C. Reeve, of Dayton, Ohio. Dr. Reeve has most conscientiously run down every reported fatal case, and finds but a single one in which death resulted when the chloroform was administered by a physician, and, as in this case no autopsy was held, the real cause of death is left in doubt.

But suppose we place on the debit side a dozen deaths, or two dozen, if you will; how many lives saved shall we place on the credit side? The tenderly reared, nervously organized girl, who, after enduring ten, or fifteen, or twenty hours of the pains of the first stage, is then compelled to endure for one, or two, or three hours, the inexpressible agony of the second stage, is not only exhausted, physically, mentally and morally, but really suffers from a high degree of shock, and is in no condition to withstand the inflammatory reaction or the insidious septicemia of her lying-in. And there is no doubt that hundreds of such women have been saved by the conservative effects of anesthesia.

Chloroform not only relieves pain, and thus prevents, to a large degree, shock and exhaustion, but it also, by its relaxing effect on rigid os and perineum, hastens delivery and also diminishes greatly the liability of these organs to laceration. I have more than once found a primiparous patient well advanced in the second stage, with pain almost continuous and agonizing, bearing down efforts uncontrollable, perineum bulging almost to bursting, but with vulva undilated and resisting. These are the cases that give us central perforation of the perineum, and here chloroform shows its power. Under its influence the bearing down ceases, the perineum and vulva relax, and the catastrophy is averted.

My obstetrical triad is as follows:

During the first stage of labor, morphine.

During the second stage of labor, chloroform.

During the third stage of labor, nothing.

Summary.—Chloroform relieves pain.

It shortens labor; usually.

It prevents shock.

It prevents nervous and physical exhaustion.

It reduces the liability to rupture of cervix and perineum.

It does not conduce, in any material degree, to post-partum hemorrhage.

It does not effect the fetus.

It is absolutely safe, when properly administered.

Contraindications.—1. Such conditions of labor as lead the obstetrician to believe that he may, at some

supreme moment, require all the woman's voluntary efforts to assist him. Such conditions are very rare.

2. Fatty degeneration of the heart; though if we accept the conclusions of the Hyderabad Commission, even this may not be a contraindication; and the disease is practically never diagnosticated, except *post-mortem.*

Brain disease is not a contraindication. An epileptic is better off with than without chloroform. Lung disease is not a contraindication; not even advanced phthisis, according to Lucas Championniere. With kidney disease, chloroform is clearly indicated. As to heart disease, Parry says: "Diseases of the heart are no contraindication to the use of chloroform," and Bordeau uses almost the same words. Augus McDonald, in his book entitled The Bearings of Chronic Diseases of the Heart upon Pregnancy, Parturition and Childbirth, says: "If chloroform be properly administered, I think it cannot but be useful in all cases." He thinks that the straining and suffering are far more dangerous than the chloroform. Fordyce Barker says: "Disease of the heart, lungs, or kidneys, is an additional reason for resorting to anesthesia in midwifery, as the vital forces are thus saved rather than exhausted." And even in fatty degeneration of the heart, Dr. Snow, the eminent authority, says: "A person is more likely to recover with chloroform, if the pain be severe, than without it."

In conclusion, I cannot do better than reproduce the vivid word-painting of Dr. W. H. Mays, of San Francisco, in an article written nearly ten years ago:

"Pain is, even when viewed scientifically, only a potent evil. Pain is a disease itself, lighting up in the economy its own set of consequences. Unchecked, it goads the nervous system to madness, and pyrexia ensues, with functional and organic disturbances. The whole duty of medicine may be summed up in two requirements: First, to remove pain; second, to prevent it. Opium, which deadens pain, is the most valuable of all drugs; rather than lose it we could afford to part with all the rest of materia medica besides. Chloroform, which also produces insensibility to pain, initiated in its discovery a new era in surgery. Yet there are physicians who, while they never hesitate to prescribe an opiate in cases of severe suffering, who never perform an operation without first anesthetizing the patient, yet will stolidly watch, hour after hour, the agonized throes of a woman, and stretch forth no hand for her relief. The tortures that women often endure in the process of parturition are beyond conception—at least beyond our conception. Take the case of a newly-married girl, gentle, tenderly reared, and fragile as a flower. Of suffering, of endurance, she knows next to nothing; her life has always been shielded by loving care, her wishes gratified, her whims indulged. As is the case with so many American girls, her nervous organization is highly developed, her sympathetic system hypertrophied. She finds herself confronted with childbirth. At the first onset of pain, the little barrier of fortitude she has built up for the occasion is swept away and she is taken possession of by a terror that her panic-stricken brain fails utterly to control. There is no escape! While one pain is holding her in its terrible grip, she knows the next will be yet worse, and the interval is spent in frenzied anticipation of still greater sufferings to come. With nerves strung to a fearful pitch of tension, and reason dethroned by fright, the poor sufferer writhes this way and that, and shrieks in wild despair, 'O let me die! I would rather die than endure this.'

"Throughout this scene the old fashioned physician preserves an unruffled demeanor, and tries to comfort the wretched sufferer with stereotyped phrases; tells her in pitiful mockery, to 'try to rest between the pains;' or reminds her, with specious reasoning, that 'all women have to go through the same,' and withholds in the very acme of physical suffering the blessed unconsciousness that he willingly supplies for the mere drawing of a tooth or lancing of an abscess."

ATRESIA OF THE EXTERNAL AUDITORY MEATUS.

By SETH S. BISHOP, M.D.,
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Surgeon to the Illinois Charitable Eye and Ear Infirmary.

AMERICAN medical books on the ear contain so little on the subject of congenital and acquired imperforation of the external auditory canal, that it appears fair to infer that this anomaly is of uncommon occurrence in this country.

Only the following four cases of complete and permanent imperviousness of the external meatus have come under my observation during a practice of fourteen years, eight of which have afforded me quite a respectable experience in hospital and dispensary work.

CASE I was a man thirty-two years old, who applied for treatment August 15, 1883. Several years previously he had been run over by a railroad train that severed the auricle from the head. The surgeon in attendance is said to have had no hopes of the man's recovery, but severed the auricle to the side of the head to make the subject appear more presentable at his funeral. The result was that union of the parts took place in such a manner as to completely close the external canal, and deprived the patient of any use of that ear. However, the fact that the auditory nerve had retained its integrity was established by a careful application of the hearing tests. I therefore cut away the scar tissue sufficiently to obtain a channel of nearly the natural size. There was only a slight discharge following the operation, and when the patient left the city for his home, two weeks later, his hearing in that ear was good for ordinary conversation.

The result showed that the drum, and auditory nerve had been uninjured by the accident, and nothing was needed to restore the usefulness of the organ beyond opening the door for the admission of sound.

CASE II.—A girl eight weeks old was brought to my clinic October 10, 1885. There was a congenital deformity of one auricle, and absence of the external auditory meatus of the same ear. The auricle was rudimentary and doubled forward upon itself. It appeared shrunken and pinched, and had a large, hard nodule and several indentations in that part of the helis that corresponds to the keystone of an arch.

It is interesting to note in this connection that the mother attributed the deformity of the auricle to the fact that about the fifth month of gestation her elder child bit the mother's ear severely at just that point that corresponds to the greatest auricular deformity in the baby.

At the point where the canal ought to have been there was a depression, or cul-de-sac, that yielded to pressure and imparted an impression as if there were an opening in the bone beneath.

Four months later, careful tests led me to believe that the child could hear with that ear. I operated to correct, as far as possible, the deformity of the

auricle and to ascertain if there were any bony meatus. On cutting down into the depression where the canal should have been, I found nothing but a depression in the bone. No bony canal could be found, and I did not consider that further operative interference was justifiable. A sufficient opening was maintained, however, to give quite a respectable appearance of an external meatus.

CASE III was an infant, fourteen months old, healthy and apparently normal except in respect to one ear. There was no opening where the external canal should have been, and, although the patient seemed to hear on that side, the parents were unwilling that an exploratory opening should be made. I saw this case several years ago, but have never heard from it since.

CASE IV was a locomotive engineer, thirty-two years old. At the age of three years he was run over by a wagon that detached the auricle and tore off a part of the cheek. The auricle was stitched over the meatus and completely closed it with dense fibrous tissue. The patient stated that he had never since been able to hear with that ear, but the tests showed that the nerve was sensitive to sound.

About ten years ago he suffered intense pain in this ear for two weeks. There followed a purulent discharge from a pin hole perforation in the adventitious tissue at the highest point of the mouth of the meatus. The discharge has continued ever since, being copious and mal-odorous. The exit for pus was so minute that accumulations produced considerable pain. At such times he pressed above and in front of the ear, and alternately pulled and pushed the auricle in a sort of pumping process, to work the pus out. He succeeded in this manner, and by the aid of Valsalva's experiment, in evacuating the pus cavities.

I operated to open up the meatus, and found it filled with tough cicatricial tissue for about three-fourths its depth. After opening up the canal, and cauterizing it with chromic acid, I inserted a vulcanized rubber tube and retained it in position with antiseptic dressings.

After the operation he could hear my sixty-inch watch one inch, and ordinary conversation eleven feet distant. After several treatments with the Eustachian catheter and topical applications, the patient resumed his occupation. When he returned again the canal had contracted, and granulations had extruded the rubber tube by one-half its original insertion. I then curetted and cauterized the canal and recovered the ground lost. Subsequently, however, the same experience was repeated and the canal was allowed to close, but by this time the discharge had diminished to a few drops in the twenty-four hours, and the foul smell had disappeared.

I had already been dilating the old perforation. Through this I could pass a probe upward into the mastoid cells and inward parallel to the roof of the external meatus to the tympani attic. I proposed a more radical operation for the excision of all the occluding tissue which would enable me to discover and remove any carious bone that might be present, but he was so well satisfied with the almost complete cessation of the discharge that he refused, and returned to his vocation.

After dilating the original opening, we found that he retained his hearing nearly, though not quite, as well as it was through the vulcanite tube.

The remarkable circumstance in this case is that the perceptive apparatus and the conducting mechanism should retain their functions after twenty-nine years of apparent disuse. But I apprehend that, although the patient was unconscious of any hearing power in this ear, it was sufficiently responsive to sound-vibrations of a major character to give the conducting apparatus exercise and to keep the nerve sensitive. The nature of his business lends color to this view, for its environment abounded in vibrations which would be imparted to every organ in his body. If anything in nature is competent to arouse a dormant acoustic nerve, I should say that nothing but Gabriel's trumpet would surpass the clanging of bells and the hooting of whistles.

Certain authors speak of imperforate external auditory meatuses as though they might be of frequent occurrence, but among the records of the Illinois Charitable Eye and Ear Infirmary, in Chicago, embracing more than eight thousand cases of diseases of the ear, I find but one case of closure from exostosis, three cases of congenital absence of the meatus auditorius externus, and three of acquired atresia from traumatic causes. Of course, we have found numerous cases of narrowing and various irregularities of the canal from causes that are common.

A reference to the following authors will bear me out in my inference that congenital and acquired atresia of the external auditory canal are anomalies of infrequent occurrence in America.

Roosa mentions congenital absence of the meatus, but does not treat of traumatic closure. He records no operations to form an external canal.

Burnett speaks of the possibility of closure, but cites only membranous and osseous neoplasms as the cause. None of my cases were of that kind, two being congenital and two traumatic.

Green's edition of Schwartze speaks of congenital atresia and stenosis of the meatus as "specially frequent."

Turnbull mentions congenital absence of the canal and rudimentary auricle, but not as being frequent.

Mittendorf does not treat of the subject.

Jones ignores it.

Pomeroy does not treat of it.

Sexton's book on the ear is silent on the subject.

Von Troeltsch has seen congenital absence of the meatus, speaks of the difficulties of the operation and discourages it, except one can with certainty find the bony canal.

Buch has nothing on the subject, but mentions membranous closures.

Congenital cases have been reported by the following authors: Politzer, Moos, Knapp, Jäger, Welcker, Robb, Hessler, Zaufall, Steinbrügge, Zuckerkandl, and Michel.

Politzer's classical work on the ear advises an "operation in congenital atresia of the external auditory meatus only when it has been with certainty ascertained, by careful examination, that it is a case of congenital thin-walled septum at the entrance to the ear. When the atresia extends far inwards, so that the canal cannot be made out, or only a solid cord, operation must be avoided as irrational and dangerous."

Virchow's Archives, Bd. 30, S. 221, and Bd. 32, S. 518, says: "Congenital anomalies of the external ear and its neighborhood are to be referred to early disturbances in the closure of the first branchial cleft, and are often associated with fistulæ of the other branchial clefts, cleft palate and other forms of arrest of development in the facial bones, as, for instance, with unilateral atrophy of the face.

719 ADAMS STREET.

ANDEER recommends the local application in diphtheria of a 10 per cent. glycerine solution of resorcin.

ON MEAT-JUICE AND BOVINE BLOOD IN THERAPEUTICS.

By FRANK WOODBURY, A.M., M.D.,

Fellow of the College of Physicians of Philadelphia; Hon. Prof. of Clinical Medicine in the Medico-Chirurgical College of Philadelphia; Formerly Attending Physician to the German Hospital of Philadelphia, etc.

IF Dr. Sangrado might be taken as the type of the physicians of the preceding century, when depletion was the sheet-anchor and blood letting a most sovereign cure for an inward bruise, as well as almost every ill that flesh is heir to, the English physician, Dr. Graves, who "fed fevers," may fittingly represent the therapeutic idea of the present age, which may be regarded as pre-eminently the era of restorative medicine. This change of treatment is partly attributable to the lessons of experience, which demonstrated the danger or uselessness of bleeding in many diseases for which it had been formerly practised—a glaring illustration being venesection in the treatment of pulmonary consumption,—and, perhaps, even to a greater degree, to increasing knowledge of the nature of morbid processes and the physiological effects of remedies. Furthermore, it must be remembered that a large proportion of our patients are no longer full-blooded, robust country squires and their families, but the highly nervous, often anæmic, dwellers in cities and their offspring.

Whatever may have brought it about, there is no denying the fact that at the present day our patients cannot bear the loss of blood, which figures so prominently in the clinical records of the past century, and even the first half of the present. Blood-letting is indeed what it was designated by Gross, "a lost art;" it is now performed only in a medical emergency similar to that which would warrant the amputation of a limb by a surgeon, and performed in the same spirit.

The therapeutic problem which now confronts us in the majority of cases is, How to increase the blood-supply? In pernicious anæmia, in phthisis and other chronic wasting diseases, in exhausting discharges, in blood-poisoning, we are called upon to improve the quality of the blood and increase its quantity; and to accomplish this various methods are followed. The most direct method is by transfusion—a method which has been practised for centuries, but it must be confessed without very satisfactory results, except to tide over some critical period, and for its temporary influence as a vital stimulant. This method is inconvenient, requires some skill, and calls for special apparatus for defibrinating the blood, keeping it warm, etc. In the first place animal's blood will not answer; the failure of the experiments of Gesellius with lamb's blood may be considered as settling this definitely. In the second place, it is doubtful whether defibrinated human blood possesses any marked superiority, for the purpose, over goat's milk, or even warm saline solutions, such as employed by Hingston, of Montreal, with success in the collapse of cholera. Apart, then, from the cases where the blood transfused is mainly useful in distending the vessels, and suddenly adding to the pabulum in the circulatory system, there is no real advantage, but many obvious disadvantages, in resorting to this method of increasing the quantity of the blood, by administering easily assimilable food and remedies favoring constructive metamorphosis. Enamata of bullock's blood have been used, and blood has been thrown into the peritoneal cavity with a view to its absorption. Experience has shown that the necessity for a resort to these methods very seldom arises; while the natural channel, the stomach, is capable of performing its functions. In Paris, we observe that it is quite the mode for fashionable ladies and their escorts to revive their energies by a visit to La Villette to drink the blood from the cattle, sold them by the butchers at thirty centimes the glass. When blood, or meat juice, is introduced into the body, it has already undergone changes, so that it no longer can be considered as blood in a living state, but simply as a nutritive material, which may, or may not, be acceptable to the digestive organs in the ordeal that fits it for assimilation. The blood is the life only so long as it is in a physiological state and under physiological conditions. It has, therefore, no mysterious life giving powers as a food, even when the patient goes to the abattoir and drinks the warm blood as it flows from the slaughtered beef; beyond the fact that it is a sort of fluid beef, chemically it is an albuminous solution holding certain salts, and among other principles a small proportion of a very soluble form of iron. In 1852, Dr. Samuel Jackson, of Philadelphia, conceived the idea of drying bullock's blood and administering it to his patients as a powder. Dr. F. E. Stewart more recently has carried this idea a little further by using only[1] defibrinated blood, and drying it in scales. At the suggestion of Dr. Andrew H. Smith, of New York, in 1879, who had also been engaged in investigating this subject, the following formula was used for administration of the dried blood to patients: Sanguis bovinnus exsiccatus, ʒvi; brandy and glycerine of each, fʒiij; dose, a tablespoonful. The dried blood was carefully prepared under the direction of Dr. Craven at the Jersey City Stockyards. The beef-blood only is used from healthy animals. Sheep's blood cannot be employed because of its disagreeable odor and its well-known tendency to convey the ovum of the tapeworm.

It has been found that the beef powder and elixir are acceptable to the digestive organs and are readily assimilated, so that their effects upon the nutrition of the body are rapidly made manifest. As Dr. Stewart justly claims, special care should be displayed in preparing blood for therapeutic use. It is exceedingly important that animals in prime condition should be selected for killing; that the blood should be immediately defibrinated as soon as it is drawn, and at once mixed with the other ingredients to preserve it, before it has had time to acquire any taint by exposure to the air. If the blood becomes at all tainted, as will occur in a few hours in hot weather, the product will be inferior, and should be rejected. In the article referred to, Dr. Stewart states that there are two preparations in the market based upon the formula of Dr. Smith, or resembling it; these are Murdock's Food and Bush's Bovinine. Of both of these I have some knowledge and some experience. The former I used for some time, but found a strong repugnance manifested by my patients to its odor and taste. Upon examination I came to the conclusion that their objections were well founded, and that the compound was more or less tainted, owing either to want of care in collecting the blood, or the absence of an antiseptic to preserve it. This objection does not hold against Bovinine, which I regard as a special food and not as a medicine, and, therefore, do not hesitate to order it when needed, because it is a proprietary article, as many special articles of food are, such as Bass's ale, or Cross and Blackwell's pickles. Owing to the alcoholic strength of the preparation, it is free from putrefactive odor,

[1] Hœmoglobin Compound or Bullock's Blood in Therapeutics, TIMES AND REGISTER, April 26, 1890.

and keeps well. The alcohol in some cases may be objectionable, as I have had patients with gastralgia and nervous dyspepsia, who could not take alcoholic preparations at all. In such cases, the addition of twenty or thirty drops of Bovinine to hot beef-essence or coffee was sufficient to volatilize the alcohol, and the bad effects were not noticed.

In cases of marasmus, in summer diarrhœa and apepsia, or feeble digestion in infants, I have seen excellent results from this agent in ten or fifteen drop doses added to each bottle just before feeding. In malnutrition of adults, neurasthenia, nervous dyspepsia, intestinal indigestion, and in wasting diseases generally, it is admirable in its results. I prefer to administer it in beer, or a bitter malt extract; but it has no unpleasant taste and may be taken simply in ice-water. Some years ago Dr. Ely, of Rochester, reported excellent results from the use of meat extract, obtainable extemporaneously by pressure (in a fruit press) from raw beef, in several cases of diphtheria, which is pre-eminently a disease of asthenia and depression, requiring stimulants and the introduction of food the most easily assimilated and most highly nourishing. In many cases of the essential fevers there occurs a time when nourishment is of more importance than drugs, and in such an emergency and at the beginning of convalescence, meat-juice, or bovine blood, as in the above formula, is invaluable.

In a case of gastric-hyperæsthesia and neuralgia, associated with possibly a latent ulcer, or an unsuspected gastric catarrh, the patient was entirely prevented from taking ordinary food for some four or five months, during which she was kept alive by teaspoonful doses of Bovinine, and one or two bottles daily of a very light malt-liquor. This was the most marked case occurring in my experience; but a number of others attest the value of the formula of Dr. Bush, as a useful addition to restorative medicine.

The preparations of Dr. Stewart have appeared more recently, and I have not yet tried them sufficiently to speak of their merits, although I can endorse the statement made by him in his admirable paper as to the value of bovine blood in therapeutics when intelligently administered and combined with the usual magistral and hygienic treatment of the patient.

ANTISEPTIC MIDWIFERY.

By F. O. DONOHUE,
Mem. Med. Staff St. Joseph's Hospital, Syracuse, N. Y.

THE frequent repetition of homely truths often serves the better to impress them. The route which I am to pursue is a broad highway worn by the tramp of many feet, and when the history of the progress of science as applied to medicine in the last half of this century shall have been written, I doubt not antisepsis as applied to midwifery will receive honorable mention.

The theory and practice of antisepsis, founded by Lister, and now sufficiently justified by experience, that infection is brought about by the action of germs which float about us in the surrounding atmosphere, and which find entrance to the system through recent wounds and lacerations; the great reform in surgery, brought about by the antiseptic treatment, could not fail to have a deep influence on the complications of parturition, and the beneficent results of the application of antiseptics in parturition are too striking to be controverted. It used to be considered, with reason, that it was safer for a woman to be delivered in the most miserable hovel, in the most unsanitary surroundings, than in the most elegantly appointed and well regulated hospital. Now, under antiseptic precautions, there is almost complete immunity from septic disturbances in these institutions.

In Germany, I am credibly informed, the use of antiseptics in midwifery is enforced by law. It is the custom in that country, for all classes, to be attended by midwives; the services of the physician are dispensed with, except in complicated cases. Every midwife is obliged by law to provide herself with and carry all necessary appliances for antisepsis. If she fails to use these appliances, she is amenable to the law and is liable to punishment for negligence. In Germany, therefore, the consensus of medical opinion is in favor of antisepsis, carried out in detail; and, in looking over the statistics of the great maternity hospitals of Europe, as well as those in our own country, it is hard to conceive how there can be any difference of opinion on this subject. I am opposed, generally speaking, to the quoting of statistics to prove any premises, but the great reduction in mortality in these institutions, since the introduction of antiseptics, is so startling that their usefulness cannot be gainsaid.

Sometime about 1850, when the immortal Semmelweiss was interne in the great lying-in hospital of Vienna, assistant to Professor Klein, the mortality from puerperal fever was something frightful, reaching to fifty or seventy per thousand. It is related of Semmelweiss that the frequent ringing of the bell outside his door, every time the priest came to administer the sacraments to the dying, filled him with horror and roused in him a strong determination to find the cause of this fearful mortality. He noticed that women who were delivered before reaching the hospital escaped; he further noticed that all protracted cases to which the students had free access terminated fatally. About this time, a friend of his died from a dissection wound. The symptoms of his illness were like those of the puerperal cases. This gave him the clue. He soon set forth his views, and ordered all the students in his clinic to disinfect their hands and arms with chlorinated solutions. The mortality at once fell. His views met with great opposition, like those of all great innovators. It is said that his mind gave way because of the bitter opposition which his views encountered. He became an object of dislike and ridicule, but he accomplished a great work. He was the first to explain the true nature of puerperal fever: that it is nothing more or less than puerperal septicæmia, and his name will go down the ages as a great benefactor.

We are all familiar with the analogy which Sir James Simpson, of Edinburgh, described about this period, between the stump after an amputation and the internal surface of the uterus after parturition. He described the analogy between surgical and puerperal fever.

Evidently, the minds of these two great men ran in about the same groove at about the same period.

The one died an object of ridicule, with his reason dethroned; the other has to his memory a life-like bust in a prominent niche within the hallowed precincts of Westminster Abbey with England's illustrious dead, being the only physician whose memory has thus been honored.

Some years after this period the active part which micro-organisms played in the production of septicæmia furnished the key to the situation. The theory of the propagation by personal contact was soon pro-

mulgated. The manner in which the disease followed in the footsteps of some practitioners, and became the scourge of lying-in hospitals, the fatal results of cadaveric contamination, and the almost complete immunity from disease of women who were confined unattended, or on whom no examinations were made, and the lowering of the mortality which followed the use of disinfectants, all these things were after awhile explained.

The progress of bacteriology has shown that aseptic midwifery means scientific cleanliness, that is, on the part of the persons attending the patient, as well as the patient herself. It is interesting to note that seventy-eight examinations of the impurities under the finger nails were recently made in the bacteriological laboratory of Vienna, and the cultivations thus produced showed thirty-six kinds of micrococci, eighteen bacilli, three sarcinæ, and various other varieties. The removal of all such impurities is an absolute duty in all who come near a parturient woman. It is not enough to apply some antiseptic material to the surface of dirt, the impurity should be removed first, the hand antisepticized after.

Many obstetricians openly repudiate the antiseptic treatment as commonly practised, nevertheless contrive to obtain results up to the average, and this, no doubt, is due to the fact that the essential feature of antisepsis is perfect cleanliness, which is, after all, the most powerful antiseptic we can employ. Cleanliness of atmosphere, person, and instruments, with it chemical antisepsis, the use of which is not unattended with danger, may be safely dispensed with. There can be no doubt that the use of mercurial solutions in the lying-in room is attended with danger, and it is by no means satisfactory to find so many physicians using this drug so freely when milder measures would suffice.

To wash out the vagina with murcurial solutions after a normal labor is meddlesome midwifery, in my judgment. If the hand has been introduced, or after a prolonged instrumental delivery, where injuries have been sustained, giving rise to foul smelling lochia, then antiseptic solutions of mercury or carbolic acid are indicated, and should be used even then with caution. The management of the third stage of labor is very important from an antiseptic stand point. To ensure the complete expulsion of the placenta with its membranes, thereby checking any tendency to the decomposition of placental *debris*, to see that all clots are removed from the vagina, and to carefully inspect the perineum, and repair, if need be, any rent that may have taken place, thereby closing the avenue of entry for germs. To wash the vagina with injections of sterilized water, thereby maintaining cleanliness, and to withhold chemical agents, unless there be clear indications for their use.

DR. AND MRS. DE FOREST WILLARD were the only Philadelphia passengers on the "Teutonic" on her quick trip across the ocean.

WHERE colchicum, blue pill and salines are now employed with advantage, the same good results could be obtained by bodily rest in a suitable temperature by means of fasting.—*Shearer.*

SOMETIMES nature only needs a little assistance at starting, and she will then do the bulk of the work herself. Shearer mentions a case of pleurisy, which had resisted treatment, until one ounce of the effusion was withdrawn, when resorption at once set in, and rapidly proceeded to completion.

Number.	State.	City.	DENTAL SCHOOLS.	Date of Organization.	Matriculation Requirements. Age.	Matriculation Requirements. Educational.	Weeks in Term.	Terms in Full Course.	Course Graded?	Clinical Facilities.	Number of Instructors.	Courses Obligatory for Graduation. Chemistry.	Pharmacy.	Histology.	Pathology.	Operative Dentistry.	Women Admitted.	Quizzing. By Faculty.	Quizzing. By Instructors.	Graduation Requirements. Years of Study.	Regular Courses.	Dissection.	Practical Work.	Clinical Work.	Examination. Oral.	Examination. Written.	Examination. Practical.	Fees. Each Course.	Fees. Graduation.	Fees. Other Fees.	Fees. Total Fees.	Term Begins.	Thesis Required?
1	D. C.	Washington	Howard University, Dental Department	1868	18	C. S. c.	26	3	Yes	Yes	13	Yes	Yes	Yes	Yes	Yes	.....	Yes	Yes	3	3	Yes	Yes	Yes	Yes	Yes	Yes	.....	.....	$ 60	.....	Oct. 1..	No
2	Illinois	Chicago	Chicago College of Dental Surgery	1882	19	C. S. d.	26	3	Yes	Yes	53	Yes	No	Yes	Yes	Yes	No	Yes	Yes	2	2	Yes	Yes	Yes	No	Yes	No	$25	$106	245	Sept. 24	No
3	"	"	Northwestern College of Dental Surgery	1885	18	T. c.	24	2	Yes	Yes	9	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	2	2	Yes	Yes	Yes	Yes	Yes	Yes	.....	.....	.....	.....	Oct.	No
4	Indiana	Indianapolis	Indiana Dental College	1879	....	....	10	2	No	Yes	24	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	3	2	Yes	Yes	Yes	Yes	Yes	Yes	100	.....	.....	.....	Oct.	Yes
5	Iowa	Iowa City	State University of Iowa, Dental Department	1882	....	....	24	2	Yes	Yes	24	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	4	2	Yes	Yes	Yes	Yes	Yes	Yes	50	.....	.....	.....	Sept. 10	No
6	Tennessee	Nashville	Central Tennessee College, School of Dentistry	1886	18	C. S. d.	20	3	Yes	Yes	7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	3	3	Yes	Yes	No	Yes	Yes	Yes	25	.....	.....	.....	Sept. 29	Yes
7	"	"	Vanderbilt University, Department of Dentistry	1879	....	....	20	2	No	Yes	9	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	2	2	Yes	Yes	Yes	Yes	Yes	Yes	.....	.....	.....	.....	Oct. 1...	No
			PHARMACEUTICAL SCHOOLS.																														
1	Illinois	Chicago	Illinois College of Pharmacy	1886	18	C. S. d.	20	2	Yes	.....	7	Yes	Yes	No	No	No	Yes	Yes	No	2	2	.....	Yes	.....	Yes	Yes	Yes	.....	.....	65	Sept. 28	No
2	Missouri	Kansas City	Kansas City College of Pharmacy	1885	16	H. S. d.	26	2	Yes	Yes	6	Yes	Yes	No	No	No	Yes	Yes	Yes	2	2	.....	Yes	.....	Yes	Yes	Yes	45	20	65	Oct. 8...	Yes
3	Kansas	Lawrence	University of Kansas, School of Pharmacy	.....	....	H. S. d.	39	2	Yes	.....	12	Yes	Yes	No	No	No	Yes	Yes	Yes	2	2	.....	Yes	.....	Yes	Yes	Yes	free	.....	.....	.....	.....	.....
4	Kentucky	Louisville	Louisville School of Pharmacy. (For Women)	1883	18	C. S. d.	40	3	Yes	Yes	3	Yes	Yes	No	No	No	Yes	Yes	No	3	2	Yes	Yes	Yes	Yes	Yes	Yes	30	10	.....	.....	Sept. 1..	No
5	Maryland	Baltimore	Maryland College of Pharmacy	1841	18	H. S. d.	26	1	Yes	Yes	4	Yes	Yes	No	No	No	Yes	No	Yes	4	2	Yes	Yes	Yes	No	Yes	Yes	60	75	.....	.....	Oct. 2..	Yes
6	Mass.	Boston	Massachusetts College of Pharmacy	1867	19	C. S. d.	34	2	Yes	Yes	8	Yes	Yes	No	No	No	Yes	Yes	Yes	2	2	Yes	Yes	Yes	Yes	Yes	Yes	25	.....	.....	.....	Sept. 22	Yes
7	Michigan	Ann Arbor	University of Michigan, School of Pharmacy	1868	18	H. S. d.	36	2	Yes	Yes	9	Yes	Yes	No	No	No	Yes	Yes	Yes	2	2	Yes	Yes	Yes	Yes	Yes	Yes	.....	60	.....	.....	Oct. 1..	Yes
8	New York	New York	College of Pharmacy of City of New York	1829	.....	C. S. d.	25	2	Yes	Yes	6	Yes	Yes	No	No	No	Yes	Yes	Yes	2	2	Yes	Yes	Yes	Yes	Yes	Yes	25	75	.....	.....	Oct. 6..	No
9	Penn	Philadelphia	Philadelphia College of Pharmacy	1821	.....	C. S. d.	24	2	Yes	Yes	7	Yes	Yes	No	No	No	Yes	No	Yes	4	2	Yes	Yes	Yes	No	Yes	Yes	50	110	.....	.....	Oct. 1..	Yes
10	Pittsburgh	Pittsburgh	Pittsburgh College of Pharmacy	1878	.....	None.	20	.....	Yes	Yes	3	Yes	Yes	No	No	No	Yes	Yes	Yes	4	2	Yes	Yes	Yes	No	Yes	Yes	50	15	.....	.....	Oct.	Yes
11	Ohio	St. Louis	St. Louis College of Pharmacy	1866	18	C. S. d.	22	.....	Yes	Yes	6	Yes	Yes	No	No	No	Yes	Yes	Yes	4	2	Yes	Yes	Yes	Yes	Yes	Yes	50	45	90	Oct. 13.	No
12	Wisconsin	Madison	School of Pharmacy of University of Wisconsin	1883	18	C. S. d.	28	2	Yes	.....	4	Yes	Yes	No	No	No	Yes	Yes	No	2	2	.....	Yes	.....	Yes	Yes	Yes	*25	.....	.....	.....	Sept. 10	Yes

*Tuition free to students of State.

TABLE OF FEES FOR HOSPITAL ATTENDANCE AND LECTURES.

(The letter "s" denotes single course; "p" perpetual, or unlimited attendance. Taken from "The British American Journal" for Sept. 7, 1889.)

	ST. BARTHOLOMEW'S.	CHARING CROSS.	ST. GEORGE'S.	GUY'S.	KING'S COLLEGE.	LONDON.	ST. MARY'S.	MIDDLESEX.	ST. THOMAS'	UNIVERSITY COLLEGE.	WESTMINSTER.	QUEEN'S COLLEGE, BIRMINGHAM.	BRISTOL MEDICAL SCHOOL.	LEEDS.	UNIVERSITY COLLEGE, LIVERPOOL.	OWEN'S COLLEGE, MANCHESTER.	UNIVERSITY OF DURHAM, COLL. OF MED.	SHEFFIELD.
Composition fee for all lectures and hospital practice required by Examining Boards.	£131 5s; or 1st win £42, 1st sum £48 6s, 2d win. £48 6s. University students who have finished anatomical studies, £68 5s.	£94 10s; or £105 in five instalments, namely: 1st win £30 9s; 1st sum £18 18s; 2d win £17 17s; 2d sum £18 18s; 3d win £18 18s.	1st yr £45, 2d yr £45, 3d yr £20. Each subsequent yr £20.	£131 5s; or 1st win and 1st sum each £66, or 1st and 2d yr each £50; 3d yr £37 10s.	£126 11s 6d; or 2 yrs £66 each yr, or 3 yrs £46 each yr.	100 guineas by instalments, or 90 guineas in one payment	£120; or 1st yr £45, 2d yr £40, 3d yr £40.	£100; or 1st win £40, 2d win £45, 3d win £25.	125 guineas; or on entr. £75, 2d win £65; or 1st yr £65, 2d yr £50, 3d yr £30.	£126; 1st yr £57 15s, 2d yr £52 10s, 3d yr £21.	£105; or 1st win £55, 2d win £55; or five payments of £24 each.	Lect £63; or 1st yr £31 10s, 2d yr £31 10s, *plus* entrance and library fees, £3 3s.	Lect £52 10s, or including preliminary sum session £63; or 1st sess £31 10s, or £42, 2d sess £21.	Lect £63; or 1st yr £31 10s, 2d yr £31 10s *plus* hospital practice.	Lect £57 15s; or 1st yr £31 10s, 2d yr £26 5s. For Victoria Science Classes, £23 14s. Medical Classes, £63.	Lect £63, in two instalments. 1st yr £31 10s, 2d yr £31 10s.	£63; or two instalments each £36 15s; or three instalments, 1st £31 10s, 2d £26 5s, 3d £21.	
Hospital Practice.	*Medical.* 3 mo £10 10s 6 mo £15 15s 2 yrs £23 12s 6d. Unlim. £33 1s 6d. *Surgical.* 3mos £13 2s6d 6mos £19 19s 1 yr £26 5s Unlim. £33 1s 6d.	*Med. or Sur.* 3 mos £5 5s 6 mos £7 7s 1 yr £10 10s Full period, £21. *Med and S'r* 3 mos £8 8s 6 mos £10 10s 1 yr £15 15s Full period £31 10.	*Med. or Sur.* 1 yr £10 10s, 2 yrs £21. Perp £31 10s.	*Med. or Sur.* 3 mos £10 10s 6 mos £15 15s 1 yr £24 3 Perp £36 15s. *Med and S'r* 3 mos £15 15s 6 mos £24 3s 1 yr £31 10s Perp £63.	*Med. or Sur.* 1 sum £5 5s, 1 win £9 9s, 1 yr £12 12s, perp £31 10. *Med and S'r* 1 sum £8 8s, 1 win £14 14s 1 yr £18 18s, perp £42.	*Medical.* 6 mos £10 10s 1 yr £15 15s, 18 mos £21, perp £26 5s. *Surgical.* 6 mos £10 10s 1 yr £15 15s, 18 mos £21, perp £26 5s.	*Med. or Sur.* 3 mos £4, 6 mos £7. 1 yr 12, perp £24. *Med and S'r* 3 mos £7, 6 mos £12, 1 yr £20, perp £45	*Med. or Sur.* Perp £15 15s, 1 yr £8 8s, 6 mos £5 5s, 3 mos £3 3s. *Med and S'r* Perp £26 5s, 1 yr £12 12s, 6 mos £7 7s, 3 mos £5 5s.	*Med and S'r* 3 mos £15, 6 mos £26, 9 mos £35, 1 yr £40, perp £55	*Med and S'r* Perp £36 15s, 1 yr £21.	*Med. or Sur.* 3 mos £4 4s, 6 mos £7 7s, each subsequent 6 mos £5 5s, 3 yrs £24 3s. *Med and S'r* 3 mos £7 7s, 6 mos £12 12s, each subsequent 6 mos £7 7s, 3 yrs £36 15s.	*General and Queen's Hospitals.* 4 yrs £42, or in two equal sums; 1 yr £21, 6 mos £14, 3 mos £10.	*Royal Infir. Med. or Sur.* 1 yr £12 12s. Perp. £21 *Med and S'r* 1 yr £21, perp. £36 15s *Gen. Hosp. Med. or Sur* 6 mos £6, 1 yr £10, perp. perp. £20 *Perp. Med. and Sur.* £36 15s.	*Infirmary. Med. or Sur.* 1 win £7 7s, 1 sum £6 6s, 1 yr £12 12s, 18 mos £15 15s, 3 yrs £21 perp £26 5s. *Med and S'r* Perp £42; or 1st yr £22, 2d yr £22.	*Royal Infir.* Perp £42, or in two equal instalments. *Medical.* 3 mos £3 15s, 6 mos £6 6s, 1 yr £7 7s. *Surgical.* 3 mos £5 5s, 6 mos £7 7s, 1 yr £10.	*Royal Infir.* Full per £42, or two instalments £22. *Medical.* 3 mos £4 4s, 6 mos £6 6s, 1 yr £10 10s, full per £18 18s. *Surgical.* 3 mos £6 6s, 6 mos £9 9s, 1 yr £12 12s, full per £31 10s.	*Infirmary.* 3 mos £7 7s, 6 mos £10 10s 1 yr £14 14s, perp £32 11s, or 1st yr £14 14s, 2d yr £12 12s, 3d yr £8 8s, or 1st yr £16 16s, 2d yr £16 16s. College £42. Infirmary £19 19s.	*General Infirmary or Public Hospital.* *Med. or Sur.* win £6 6s, sum £3 3s.
Fees for Students of Dental Surgery.	£63; or 1st win and 1st sum each £33 1s 6d.	£42 2s; or 1st Oct £22 2s 2d Oct £20.	£55; or 1st yr £30, 2d yr £25.	£42.	*Hospital.* 1 yr £10 10s, 2 yrs £15 15s.	£40. Dent. pr. gen. £10.	£55; or 1st yr £30, 2d yr £25.	£42; or 1st win £30, 2d win £15.	£55; or 1st yr £50, 2d yr £10.	£63.	£52 10s; or 1st yr £33, 2d year £22.	£63; or 1st yr £42, 2d yr £21.			£75 comp.	£10 10s for full period.	£42; or two instalments of £22 10s, or 3 of £16 each	
Anatomy.	*s* £9 9s. *p* £13 2s 6d.	£7 7s. subs c £4 4s.	*s* £7 7s. *p* £8 18s 6d.	*s* £7 7s.	*s* £6 6s. *p* £9 9s.	*s* £5 5s.	£8.	*s* £10 10s. subs c £4 4s.	*s* £7 7s. *p* £10 10s.	*s* £10 10s. *p* £12 12s.	1 c £7 7s. subs c £3 3s.	*s* £6 6s.	*s* £5 5s.	*s* jun or sen each £5 5s.	2 cs, each £5 5s, 3d c £2 12s 6d.	*s* £5 5s.	*s* £5 5s.	1st c £4 4s. 2d c £2 2s.
Demonstrations and Dissections.	*s* £7 7s.	£7 7s. subs c £4 4s.	*s* £3 3s.	*s* £7 7s.	*s* £7 7s.	*s* £5 5s.	£6.	*s* £6 6s. subs c £3 3s.	3 mos £4 4s. 6 mos £6 6s. perp £10 10s.	3 mos £4 4s. 1 yr £8 8s.	3 mos £5 5s. subs 3 mos £3 3s.	*s* £5 5s.	£3 3s.	3 mos £2 2s. 6 mos £3 3s.	*s* £3 3s. sum £2 2s.	6 mos £3 3s. 3 mos £2 2s. sum £2 2s.	*s* £5 5s.	
Physiology.	*s* £9 9s. *p* £13 2s 6d.	£7 7s. subs c £4 4s.	*s* £7 7s. *p* £8 18s 6d.	*s* £7 7s.	*s* £8 8s. *p* £11 11s.	*s* £4 4s.	£7.	*s* £8 8s. subs c £3 3s.	*s* £7 7s. *p* £10 10s.	£7 7s. elem £5 5s.	1 c £6 6s. subs c £2 2s.	*s* £6 6s.	*s* £5 5s.	*s* jun or sen £5 5s.	2 cs, each £5 5s; 3d c £2 12s 6d.	£5 5s.	*s* £5 5s.	1st c £3 3s. 2d c £2 2s.
Practical Physiology and Histology.	(PP) *s* £7 7s. (H) *s* £2 12s 6d.	*s* £6 6s.	(H) *s* £3 3s.	*s* £7 7s.	*s* £6 6s. ext c £2 2s.	*s* £3 3s.	£5.	*s* £5 5s. subs c £2 2s.	*s* £6 6s (extras).	£8 8s.	1 c £2 2s. H alone £6 6s	*s* £4 4s.	*s* £4 4s.	*s* £6 6s.		*s* £5 5s.	*s* £5 5s.	*s* £3 3s.
Comparative Anatomy.	*s* £2 12s 6d. *p* £4 4s.	*s* £3 3s.	*s* £4 4s.		*s* £4 4s.	*s* £3 3s.	£3.	*s* £2 2s. subs c £1 1s.	*s* £4 4s. *p* £5 5s.	*s* £6 6s.	1 c £3 3s. subs c £2 2s.		*s* £4 4s.	*s* £4 4s.		*s* £2 12s 6d.	*s* £2 2s.	
Botany.	*s* £4 4s. *p* £5 5s.	*s* £4 4s.			*s* £4 4s. *p* £6 6s.	*s* £3 3s.	£3.	*s* £2 2s. subs c £1 1s.	*s* £4 4s. *p* £5 5s.	*s* £3 13s 6d. *p* £5 5s.	1 c £4 4s.	*s* £4 4s.	*s* £3 3s.	*s* £5 5s.		*s* £2 12s 6d.	*s* £5 5s.	*s* £3 3s.
Chemistry.	*s* £6 16s 6d. *p* £9 9s.	*s* £6 6s.	*s* £6 6s. *p* £7 17s 6d.	*s* £7 7s.	*s* £8 8s. *p* £11 11s.	*s* £7 7s.	£6.	*s* £6 6s. subs c £3 3s.	*s* £7 7s. *p* £10 10s.	*s* £6 6s.	1 c £6 6s. subs c £2 2s.	*s* £5 5s.	*s* £3 3s.	*s* £5 5s.	£5 5s.		*s* £5 5s.	
Practical Chemistry.	*s* £3 3s.	*s* £5 5s.	*s* £4 4s.	*s* £5 5s.	*s* £6 6s. ext c £2 2s.	*s* £5 5s.	£4.	*s* £4 4s.	*s* £6 6s (ex	*s* £5 5s. sec c £2 2s.	*s* £4 4s. subs c £1 1s.	*s* £4 4s.	*s* £3 3s.	*s* £4 4s.		*s* £4 4s.	*s* £5 5s.	*s* £3 3s.
Materia Medica.	*s* £6 16s 6d. *p* £7 17s 6d.	*s* £4 4s.	*s* £4 14s 6d. *p* £5 15s 6d.	*s* £5 5s.	*s* £5 5s. *p* £6 6s.	*s* £3 3s.	£4.	*s* £2 2s. subs c £1.	*s* £4 4s. *p* £5 5s.	*s* £6 6s. *p* £7 7s.	1 c £3 3s. 2 cs £4 4s.	*s* £4 4s.	*s* £3 3s.	*s* £4 4s.	1st c £4 4s; 2d & 3d ea £2 2s	*s* £4 4s.	*s* £5 5s.	*s* £3 3s.

	£2 2s.	£3 3s.	£3 3s.	£4 4s.	3 mos £3. 6 mos £6.	£3 3s.	3 mos £3 3s.	3 mos £1 1s. 6 mos £5 5s.	£2 2s.	£2 2s.	3 mos £3 3s.	£2 2s.	
Practical Pharmacy.	s £2 2s. p £4 4s.	s £3 3s.	p £3 3s. M A £7 7s.	s £3 3s.	s £4.	s £4 4s. subs c £2 2s.	s £4 4s. p £5 5s.	1 c £4 4s. 2 cs £6 6s.	s £4 4s.	s £3 3s.	s £4 4s.	s £5 5s.	
Pathology and Morbid Anatomy.	s £2 12s 6d. p £4 4s.	s £3 3s.	s £3 3s. p £4 4s.		s £4.	s £8 8s. subs c £3 3s.	s £7 7s. p £10 10s.	1 s £6 6s. 2 s £8 8s.	s £6 6s.	s £5 5s.	s £6 6s.	1 & 2 cs £5 5s 3d £2 12s 6d.	1st c £4 4s. 2d c £2 2s.
Medicine.	£7 7s.	s £7 7s. p £8 18s 6d.	s £7 7s.	s £5 5s.	s £8.	s £8 8s. subs c £3 3s.	s £7 7s. p £10 10s.	1 s £6 6s. 2 s £8 8s.	s £6 6s.	s £5 5s.	s £6 6s.	s £5 5s.	s £4 4s.
Surgery.	s £6 16s 6d. p £9 9s.	s £7 7s. p £8 18s 6d.	s £7 7s.	s £5 5s.	s £8.	s £8 8s. subs c £3 3s.	s £7 7s. p £10 10s.	1 s £6 6s. 2 s £8 8s.	s £6 6s.	s £5 5s.	s £6 6s.	1 c £5 5s; 2 & 3 ea £1 1s.	s £4 4s.
Practical Surgery.	s £6 16s 6d. p £9 9s.	s £5 5s.	s £4 4s.	s £5 5s.	s £5.	s £6 6s. subs c £2 2s.	s £6 6s (ext).	1 c £3 3s. 2 c £4 4s.		£3 3s.	£4 4s.	1 c £4 4s; 2 & 3 ea £2 2s.	s £3 3s.
Operative Surgery.	s £3 3s.		s £2 2s.	s £3 3s.	£ 5.	s £5 5s.	see c £4 4s.						
Ophthalmic Surgery.	s £2 12s 6d. p £4 4s.		s £5 5s.	£5 5s.	£ 6.	s £5 5s.	s £5 5s.	£6 6s.	s £5 5s.	£5 3s.	s £3 3s.	s £5 5s.	s £4 4s.
Dental Surgery.	s £2 12s 6d. p £4 4s.		Inc. in Surg.	s £2 9s.	s £3.	s £2 2s.	s £2 2s.	s £1 1s.			s £2 12s 6d.	s £4 4s.	s £3 3s.
Midwifery.	s £6 16s 6d. p £7 17s 6d.	s £4 4s.	s £2 12s 6d.	s £2 9s.	s £3.	s £2 2s.	s £2 2s. p £3 3s.	s £2 2s.	£4 4s.	£1 1s.	s £2 12s 6d.	s £1 1s.	s £5 5s.
Forensic Medicine.	s £4 4s. p £5 5s.	s £4 4s.	s £4 14s 6d. p £5 15s 6d.	s £5 5s. p £6 6s.	s £5.	s £5 5s. subs c £2 2s.	s £5 5s. p £6 6s.	1 s £6 6s. 2 s £8 8s.	s £5 5s.	£5 5s.	s £5 5s.	£2 2s.	s £5 5s.
Psychology.	s £2 12s 6d. p £4 4s.		s £4 14s 6d. p £5 15s 6d.	s £5 5s. p £6 6s.	s £4.	s £4 4s. subs c £2 2s.	s £4 4s. p £5 5s.	1 c £3 3s. 2 cs £4 4s.	s £4 4s.	s £3 3s.		£1 1s.	s £3 3s.
Public Health or Hygiene.	£2 12s 6d.		s £4 14s 6d. p £5 15s 6d.	s £5 5s. p £6 6s.	s £4.	s £4 4s. subs c £2 2s.	s £4 4s. p £5 5s.	1 c £3 3s. 2 cs £4 4s.	s £5 5s.	s £5 5s.	s £2 12s 6d.	s £2 12s.	s £5 5s.
Instruction in Vaccination.			s £4 14s 6d. p £5 15s 6d.	s £3 3s.	s £4.	s £4 4s. subs c £2 2s.	s £4 4s. p £5 5s.	1 c £3 3s. 2 cs £4 4s.	s £4 4s.	s £3 3s.		s £2 12s.	s £3 3s.
Library.	Free.	£1 1s.	s £4 14s 6d. p £5 15s 6d.	s £5 5s. p £6 6s.	s £4.	s £2 2s. subs c £2 2s.	s £2 2s. p £3 3s.	1 c £3 3s. 2 cs £4 4s.	s £2 12s 6d.	s £2 12s.	s £3 3s.	s £5 5s.	s £5 5s.
			s £4 14s 6d. p £5 15s 6d.	s £5 5s. p £6 6s.	s £5.	s £5 5s. subs c £2 2s.	s £6 6s. p £7 7s.	1 c £4 4s. 2 cs £5 5s.	s £5 5s.	s £4 4s.	s £4 4s.	s £5 5s.	s £5 5s.
			s £4 14s 6d. p £5 15s 6d.	s £5 5s. p £6 6s.	s £4.	s £4 4s. subs c £2 2s.	s £5 5s. p £6 6s.	1 c £3 3s. 2 cs £4 4s.	s £4 4s.	s £3 3s.	s £4 4s.	s £5 5s.	s £5 5s.
			s £4 14s 6d. p £5 15s 6d.	s £5 5s. p £6 6s.	s £5.	s £5 5s. subs c £2 2s.	s £6 6s. p £7 7s.	1 c £4 4s. 2 cs £5 5s.	s £5 5s.	s £4 4s.	s £4 4s.	s £5 5s.	s £5 5s.
			s £4 14s 6d. p £5 15s 6d.	s £5 5s. p £6 6s.	s £4.	s £4 4s. subs c £2 2s.	s £5 5s. p £6 6s.	1 c £3 3s. 2 cs £4 4s.	s £4 4s.	s £3 3

4. It is useless to attempt to remedy the spinal distortion so long as its cause remains unrelieved.

5. The existence of chronic pain in the sciatic nerve, not yielding in a reasonable space of time to medication, should always lead the practitioner to make a careful examination of the spine and of the region of the ilio-sacral juncture.

6. This affection is met with more frequently in adult than in child life.

7. Its appropriate treatment consists in splinting the pelvis, and thus preventing motion between the opposing surfaces of the symphysis, motion not being its natural function.

8. For the same reason extension cannot be expected to produce the favorable results in this affection that we obtain from it in arthrodial joints.

9. The disease is often of extremely slow development.

10. Its first symptom is abdominal pain, whence it may readily be mistaken for peritonitis, ovaritis, cystitis, and the like.

11. This pain is principally referred to the side on which the injury exists.

12. The existence of severe unilateral abdominal pain, accompanied by little or no febrile action, should lead to the suspicion of the existence of this affection.

13. A mechanic may, by a happy chance, give temporary relief to a patient suffering from this disease; but, as he is entirely ignorant of its seat and nature, he is not, perhaps, the safest person to refer the patient to.

The Polyclinic.

FOR ECZEMA OF HANDS:—

℞.—Ac. salicyl. . . . . gr. xxv.
Pulv. amyli,
Pulv. zinci ox. . . . . āā ʒij.
Petrolati . . . . . ʒss.
M.

℞.—Hydrarg. chlor. nit . . . . . gr. xxx.
Ac. carbolici. . . . . gr. x.
Ung. zinci ox. . . . . ʒj.
M.

℞.—Ac. borici . . . . . ʒj.
Glycerinæ . . . . . ♏xv.
Alcohol . . . . . ʒj.
Aquæ . . . . . ʒiv.
M.—To be used in conjunction with an unguent.

℞.—Resorcin . . . . . gr. xl.
Glycerinæ . . . . . ♏xv.
Alcohol . . . . . ʒj.
Aquæ . . . . . ʒiv.
M.—To be used in conjunction with an ointment.

—*H. W. Stelwagon, M.D.*

NUMEROUS rumors appear in the public press that influenza has reappeared in various isolated localities. Several times my own patients have asked me if la grippe had not come back to Philadelphia, as there was a general prevalence of catarrhs. These attacks, however, are merely epidemics of ordinary catarrh. They are distinguished from influenza by the absence of marked depression, of aching bones, delirium and alarming symptoms generally, and by the want of any tendency to increase the weekly mortality. That these attacks are really epidemic catarrhs, and not simply due to changes in the weather, I am fully satisfied from a careful observation of the conditions under which they occur. It is quite probable that the influenza has left behind it an increased susceptibility to catarrhs, which may not wear off for some time.—*Waugh.*

CHINESE REMEDY FOR DIPHTHERIA:—

℞.—Anhydrous borax	42.50 per cent.
Borneo camphor	12. "
Powdered pearls	9.55 "
Native cinnabar	15.30 "
Basic acetate of copper	1.20 "
Charcoal and water	19.45 "

This is the analysis of a powder known as Sin-Seh, which is so popular in Java that the regular physicians are never allowed to treat diphtheria. The formula is found in the "Pent-Sau-Kang-Mou," a Chinese work on therapeutics over three hundred years old. Some specimens of the powder also contained ox benzoar, indigo, coptis root, licorice, urinary sediment, musk, amber, ginseng, gold leaf, or tabasheer; but the above is alone essential.

The powder is blown over the tonsils and pharynx by an insufflator, every two or three hours; occasionally applying a little in the nose.

The regimen is strict, and, with the exception that milk does not seem to be used, much as our own at the present day. The patient must remain in bed in a cool, well ventilated room, free from draughts. He is forbidden to take ice or iced drinks—we are only beginning to learn that nothing makes the mouth drier or excites thirst more readily than glaciation—butter, sugar, food cooked in fat, and fruits. He is to take rice boiled in water, eggs and fish, later on minced fowl with bread. He is to drink nothing but water which has been boiled and allowed to cool.

—*Provincial Medical Journal.*

CHRONIC BRONCHO-PNEUMONIA.—In the final days of a case of this sort, the physician's task is to make the patient as comfortable as possible; and this is what WOODBURY prescribed for this purpose:

For Fever:

℞.—Antipyrine . . . . . gr. v
Quinin. hydrochlorat . . . . . gr. ij
Camphor. monobrom . . . . . gr. ss
M. S.—In capsule, as needed.

Cough Mixture:

℞.—Acid. sulph. aromat . . . . . ♏iij
Tr. opii deodorat . . . . . ♏v
Syr. pruni Virg . . . . . q. s. ad ʒj

Sedative—for Night Use:

℞.—Morphinæ acet . . . . . gr. $\frac{1}{12}$
Atropinæ . . . . . gr. $\frac{1}{120}$
Aquæ menth. pip . . . . . ♏v
M.

Tonic:

℞.—Acid. sol. hypophos.,
Elixir . . . . . āā ʒj
M. S.—As needed.

Laxative:

℞.—Ext. cascaræ sag. fl.,
Tr. cardam. comp.,
Syr. aurant. cort . . . . . āā ♏xx
M.

Bovinine, gtt. xx., in milk.
Calf pepsin, after milk.
Yolk of egg in sherry.
Meat-broth.

The Times and Register

A Weekly Journal of Medicine and Surgery.

New York and Philadelphia, Sept. 27, 1890.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

THE TIMES AND REGISTER,
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THE PRODUCTION OF IMMUNITY FROM TUBERCULOSIS.

WE have little sympathy with the feeling that a person must be supported simply because he is an American. On the contrary, if a fellow-countryman cannot hold his own in open competition with the citizens of less-favored lands, when all are placed on an equality at the start, we feel somewhat ashamed of him. But when one of our own people actually does a creditable piece of work, and his claims are ignored because he is an American, one's sense of justice as well as patriotism is aroused in opposition.

For a long time Dr. Samuel G. Dixon has been investigating the question of obtaining immunity against tuberculosis. Last October he suggested the method of producing immunity, in the *Medical News* of this city. The propositions then set forth by him were: That it is possible to obtain from tubercular material a substance, free from micro organisms, that can be attenuated and inoculated in living animals so as to develop in them the power of resisting the attacks of the tubercle bacilli; further, that if these bacilli are to be used for preventive inoculation, their virulence must first be moderated. Dr. Dixon also stated that he had already succeeded in establishing a certain degree of immunity in animals by inoculating them with cultivations of a peculiar type of the tubercle bacillus; and that by exposure to varying temperatures and conditions of moisture, pressure and food, he had succeeded in producing an alteration in the morphological characteristics of this bacillus.

In a brief note in the *Medical and Surgical Reporter* Dr. Dixon enumerates the possibilities in the way of explaining the production of this immunity. He says:

"It is quite possible that the organisms in the changed forms have not sufficient vitality to live in the animal economy, and, therefore, the only active portion of the matter injected is a chemical product carried in with the bacilli and which is poisonous to the ordinary tubercle bacillus. Or again, it is possible that the organisms themselves are antagonistic to the bacillus of Koch. It is also possible that this unusual form of bacillus produces, when in the animal economy, that which kills the tubercle bacillus. Or, we can believe it possible for this new form to consume that from the animal tissues necessary for the existence of the tubercle bacillus, and by a different metabolic process to form a product non-poisonous to animal life.

"From the fact that we all inhale tubercle bacilli daily, without contracting phthisis, except in odd cases where there is a predisposition, or where a great number of bacilli are taken into the system, we are inclined to believe that a change, either chemical or otherwise, must take place in the normal tissues before we can contract the disease. If this be so, we must aim at correcting that change, and it seems within the range of possibilities that such a correction might be brought about by a chemical substance, or by stimulating the tissues by micro-organisms, harmless in themselves, either through their degree of vitality or their kind.

"Be this as it may, it will probably be interesting to the scientific world to know that the results published last October have been uninterruptedly corroborated by a series of inoculations of the prepared virus into guinea-pigs, rabbits, and opossums, after which they have resisted matter so virulent that all animals not previously inoculated with the changed virus took on tuberculosis when inoculated with it."

It will be seen that this investigation was undertaken long before Koch's recent announcement, and, indeed, it is probable that Dr. Dixon's first paper suggested to Koch, and Grancher as well, the line upon which their own researches have been since made. It has been the reproach of bacteriology that nothing of practical value in the treatment of tuberculosis has resulted from Koch's discovery. We may now hope that this will be removed, since Dixon's results point to the true way of combating the disease, by studying the biology of the bacillus, and ascertaining nature's methods of restraining its multiplication, instead of hunting for a chemical germicide.

QUACKS AND THEIR METHODS.

IT is an undeniable fact that a clever quack will secure—we will not say earn—more money from his patients than the regular practitioner. Of course there are exceptions; but they are few.

It is also surprising to note the ease with which the unsuspecting public can be gulled; and, while allowing themselves to be imposed upon, cheated, and often permanently injured, still imagine themselves benefited. It is therefore due to the public at large, as well as the medical profession, that these quacks and their methods should be publicly exposed. For such a work the medical press is eminently fit; and THE TIMES AND REGISTER trusts that it may be valuable to its readers in this line, as occasion presents.

One of the most well-known medical firms, the advertisements of which may be seen in almost any daily paper, is that of Drs. McCoy & Wildman, the

catarrh specialists of Philadelphia, New York, and eight other cities. It was with a desire for knowledge that a member of our editorial staff (himself a physician) wended his way to the offices of Drs. McCoy & Wildman, on Chestnut street. It was 1 P. M., and the gentleman of color who responded to the ring informed our representative that the doors would be open at 1.30, and business begin at 2 P.M. "Ambulances at three!" was mentally subjoined.

Promptly at 1.30 our representative again appeared on the scene, and was given a well fingered brass tag with the letter A stamped upon it. He was shown into the rear waiting room, where about a dozen sad-eyed men were already seated. There were about thirty chairs in the room, and a commodious spittoon allowed for every two chairs. Female voices coming from the front room suggested that this was reserved for women. The class of patients was decidedly poor, belonging mostly to the laboring class. An attendant in the hall called out a number every few minutes, and the unfortunate victim would rise and answer the summons. In about fifteen minutes he would return with a flushed face, full of misery, make for a spittoon, and cough, sneeze, shed tears, blow his nose, gag, and expectorate to his heart's content. In about ten minutes later he would again be called out and given a few large bottles of medicine.

While enjoying these demonstrations, the participants in which were constantly increasing, our representative scarcely heard "Letter A" called by the attendant; but, stifling his emotions, went out, and was ushered to the second floor, where a physician with a smiling face was awaiting him. After having obtained a fictitious name and address and a correct age, the doctor asked whether the trouble was in the throat and nose. "Possibly it was," was the rejoinder; and then our representative gave the following symptomatology of coryza:

"Doctor, whenever I take cold, my head and nose gets stopped up; I sneeze and my nose runs. At those times, if I lie on my right side at night, my right nostril will become stopped up, and if I lie on my left side, it will get stopped up. Then my head usually aches at the same time. Mind you, Doctor, the funny part of it is that I'm not troubled all the time; but it's only occasionally, when I take cold."

This was delivered without a smile, and the "light of learning" wisely nodded his head.

"Are you Dr. McCoy?" was asked.

"No."

"Dr. Wildman, then?"

"No?"

His name was Coates, and his father had been a practising physician in Philadelphia for fifty years. Our representative remarked that he supposed a good many physicians were employed by Drs. McCoy and Wildman.

"Oh, yes," said Dr. Coates; "two men could not begin to attend to such a business as *this*."

Then Dr. Coates turned up an Argand burner on a student's lamp on the desk at his side, and proceeded to insert a large nasal speculum in our representative's nostrils. No head mirror was used, and consequently no light was reflected into the nostrils. Then the throat was similarly examined without light, by aid of a tongue-depressor, and the tongue inspected.

Our representative inquired as to the nature of his disease.

"You are in a bad way," said Dr. Coates; "you have a bad catarrh of the head, throat and stomach, and your liver is in a bad condition. It will take eight months of our treatment for us to cure you. We will charge you fifteen dollars for the first month and nine dollars for each subsequent month. For this we will supply you with an inhaler and all necessary medicines. I advise you *not* to delay treatment, as yours is a condition that will go from bad to worse, and delay might prove serious. I should like you to take a treatment now. Everything can be gotten ready for it down stairs in ten minutes. If you have not the money by you, I have blank checks right here."

It may as well be remarked here, that our representative was enjoying perfect health when examined; and that he neither has, nor ever has had, catarrh. At the time of examination both nares were clean and clear, and his throat perfectly normal. His tongue had been purposely slightly coated. His liver is far from faulty. After recovering from the shock of learning his moribund condition, he timidly asked Dr. Coates if a cure were possible.

"I don't think there is a doubt of it, sir," said Dr. Coates, and then filled out a card with hieroglyphics that defied reading, and gave it to our representative, urging him not to wait, but to begin treatment at once.

About two weeks later another call was paid to the offices of Drs. McCoy and Wildman. Again Dr. Coates was seen. The cost of the treatment was complained of and our representative's photograph offered in lieu of compensation. Dr. Coates seemed suspicious, and said that this would be no inducement.

"Why, I assure you that there are quantities of persons who come and *beg* us to publish their photographs and statements."

After a little further talk, Dr. Coates' fears seemed to abate, and he said:

"Well, if you wish to, you can give us your statement after you have taken the treatment—and your photograph; and I'll make the first month twelve dollars, instead of fifteen dollars, and the subsequent months seven dollars, instead of nine dollars."

A new card was then made out and given our representative.

The above needs no comment. We trust only that it may serve as a warning to the public—a warning which, coming from the physician himself, might be unheeded or misunderstood.

MR. HENRY MAUNSELL SCHIEFFELIN, of the well-known firm of druggists of New York, has recently died from fever, at Alexandria. He was a good example of the God-fearing, enterprising, self-made man, and he was one of those who took an active interest in the negro-emancipation movement. By his will Mr. Schieffelin leaves four thousand pounds to the American Sunday School Union.—*Hosp. Gaz.*

Annotations.

A VERY extraordinary circular has just been issued by a firm of Philadelphia opticians. In it they acknowledge the hurried and imperfect manner in which opticians examine their customers' eyes for glasses; recognize that in no case should the optician prescribe; confess that they have been doing this wrong thing, and declare their determination to refrain from such culpable conduct in future. In return, they coolly ask the ophthalmologists to prevent this repentance from costing the firm anything by extending it their patronage.

PROF. SAMUEL G. DIXON has resigned his chair in the University of Pennsylvania, and accepted one in the Academy of Natural Sciences, where he will continue his bacteriological researches. The department of hygiene at the university was practically created by Dr. Dixon, who was mainly instrumental in the collection of an endowment for it. Quite recently he published a paper upon medical education, which has attracted much attention. In it he spoke of the great importance of a high standard of morality in those to whom is entrusted the education of young men. All who know how prone young students are to take their teachers as exemplars, and to find in their actions excuses for the slips to which youth is so liable, will appreciate the justness of this demand for uprightness in the preceptor. The medical student does not attend college so much to acquire the facts of medical science, as to prepare himself for the station he is to fill in his active life; and we are old-fashioned enough to believe that one is not a worse physician by being a *good* man.

THE struggle for existence is sharpest in the great cities, where the greatest success is obtainable, and where a certain number of unfortunates are sure to be ground down very fine between the millstones. The handling of large sums to win a profit renders it difficult to make a similar profit out of small sums—especially as the proportional cost increases inversely with the amount to be invested. Now and then we get a glimpse of the substratum of wretchedness underlying the splendor of the metropolis; when the roar of the rushing business world momentarily subsides, we can distinguish the wail of misery. As we descend in the scale of property-owning, we find that difficulties increase until we reach the point where poverty becomes a crime, punishable by the deprivation of one's liberty and of the right to hold together one's family.

In a recent number of the *New York World* it is stated that a homeless family were found sleeping in an old boat-house. The man had got out of work, his wife sickened, and they were set in the street for non-payment of rent. Dispossessed of everything, it can be imagined what must have been the life of these unfortunate outcasts. Perhaps they were not as provident as they might have been; were not "forehanded;" had not sufficiently learned the lesson of selfishness and of sharp practice in dealing with their fellows. Poverty results only in part from self-indulgence; for the thrift which enables a man to make a "good bargain" with his neighbor makes it a bad bargain for the neighbor; so that the failure to secure a competency is only a proof of the lack of high qualifications as a bargainer. And how relentlessly the world punishes the man who is not born smart or acquires smartness. In the case quoted, the child of the couple was sent to a Children's Home, and, as the husband had obtained work, he was allowed to go free with his wife.

Another man, found sleeping in a wagon, was "sent up" for a month as a vagrant.

THE DOSING MANIA.

INTEMPERANCE assumes many popular forms not directly assailable from prohibition and temperance society stand-points. Alcoholism, advertising its victims by unmistakable signs and symptoms, stands as the emblematic figure-head of indulgence, and is the chosen target of those who seek to crush this evil by law. Drug habits may eventually produce more horrible effects than alcoholism, but are more secretly practised and with less danger of immediate detection. Fortunately, the difficulty of constantly procuring the desired supply presents an obstacle to the popularity of this form of vice, but it is not an entire check to its pursuit. Opium or morphine and cocaine, taken at first for medicinal purposes, and continued till use becomes abuse, weave a web around the feet of the wretched victim, who becomes hopelessly entangled in slavery. Chloroform and chloral, by their soothing properties, ensnare their percentage of habitués; and so the list may be increased by the various hypnotics, anodynes and anti-spasmodics, often sought to induce sleep or to quiet excited nerves.

There are persons who, though they would regard with virtuous condemnation the hypodermic consolation of morphine, or the tippling of cologne spirits, or the binding up of shattered nerves with asafœtida, would, nevertheless, fail to recognize the fact that they, themselves, were addicted to the drug habit. This latter evidence of the foolishness of human nature is manifested in the general dosing mania which takes possession of certain classes of individuals. Sometimes, it is one particular sovereign remedy which is in favor, and which is applied for all sorts of complaints, for every member of the family, and at every season of the year. Like Patrick's potations of whiskey to keep out both the heat and the cold, this cure-all relieves alike whooping-cough or gout. Then, again, the mania consists in treating some fancied or real ailment with every available remedy in the pharmacopœia, till nothing but the remarkable toughness of the human anatomy saves the life of this devotee of drug tippling, and furnishes a commentary on the effectiveness of medicine in general.

When the drug fiend's system becomes so saturated as to be impregnable to all remedies, resort is had to the unconscious physician, who vainly endeavors to make the impression which he expects from the results usually following his treatment. Often, indeed, while following the course prescribed by the physician, these maniacs surreptitiously alternate his remedies with occasional doses of their own selection, and, when relief is not obtained, the doctor must shoulder the blame.

Reckless, indiscriminate dosing is conducive to disease and opposed to the theory of the practitioner, who considers the use of drugs only when regulated by skill and experience, as a valuable assistant to nature in restoring and preserving health. A. G.

CATHOLIC priest and Protestant minister unite in the cry for help in famine-stricken Ireland; but the landlords still deny the existence of poverty and unanimously demand their pound of flesh.

Letters to the Editor.

ABSENCE OF KIDNEY.

AT an autopsy held here recently upon the body of a man who died of enteritis, congenital absence of the left kidney and ureter was discovered. The right kidney was enlarged to nearly twice the normal size; but beyond simple hypertrophy the microscope showed no evidences of organic change. The right ureter was enormously enlarged, being at first mistaken for a part of the small intestine.

CLARENCE W. PELTON, M.D.,
House Officer, City Hospital.

WORCESTER, MASS.

DRIED-BEEF POISONING.

IN THE TIMES AND REGISTER of September 6, Dr. McCann, of St Paul, reports a case of poisoning supposed to be from dried-beef. A similar case in my own practice, slightly antedating his, will, perhaps, make it more probable that the beef was the offending article.

At noon, June 10, 1890, I was called to visit the family of Mr. W., whose two daughters and nephew were supposed to have been poisoned. All were suffering from severe pains in the stomach and bowels, vomiting and purging, which was relieved by the following prescription:

℞.—Tr. opii camph. . . . . ℥iv.
Bismuth subnit . . . . . ℥j.
Mist. cretæ. . . . . ad ℥ij.
M.—S. Teaspoonful after each loose discharge, or every hour while in pain.

Inquiring as to the cause, the only article that each of the three had partaken of was chipped-beef and cream, but Mr. W. and his brother had also partaken freely of the same article; Mrs. W. being the only one who had not tasted it.

Being pressed to account for the fact that Mr. W. and brother felt no ill effects, I said, "you may be sick later," only four or five hours having elapsed since breakfast, and I cautioned them to be on the look-out for trouble, and produce vomiting at once if they had any distress in the stomach.

The next day Mr. W. told me that about five o'clock in the evening he was taken sick suddenly, just like the other members of the family, and that his brother was similarly affected between seven and nine o'clock in the evening. Mrs. W. suffered no inconvenience at all. The meat could not be obtained for examination, but was beyond a doubt the toxic agent.

The meat had been obtained from the store the day previous and nothing appeared wrong in preparing it; neither did any of the family notice anything peculiar in the taste.

What process had taken place which rendered it poisonous I do not know, but dried-beef deserves mention at least in the next work published on Toxicology.

W. D. BIDWELL, M.D.

LEAVENWORTH, KAN.

ANOMALOUS CASES IN PRACTICE.

DELAYED UNION OF THE TIBIA.

IN THE TIMES AND REGISTER, Vol. V, page 280, I reported under the head of Anomalous Cases in Practice a case of transverse fracture of the lower portion of the upper third of the femur, treated with plaster of Paris dressings with good results. I now report the experience of a particular friend, Dr. E. J. Scruggs, of Montserrat, Mo., in a case where he used similar dressings, which shows some serious disadvantages in this mode of treatment. He says:

"I have a case of delayed union, which is just recovering—getting so he can put almost his entire weight on the affected limb. The patient, while riding on horseback some nine weeks ago, was kicked by a mule that was being ridden in front of him, the blow taking effect in the middle third of the tibia, causing a comminuted fracture; the fibula was not broken. We dressed the limb with a plaster splint, which remained on for thirty days. Upon removal we found there had been no inflammatory action, and the bone was just as I put it, except some rounding of the sharp points. I concluded it had been too thoroughly mobilized, so removed all splints and gave the patient a pair of crutches. After a few days reparative inflammation set in, and soon new bone was formed, and is becoming quite solid; the patient being a young man twenty-five years of age, robust and good family history. Delayed and non-union are rare in this bone."

CONGENITAL OCCLUSION OF THE RECTUM AND ANUS.

CASE II.—On July 20, Mrs. S., the mother of three daughters, residing six miles from town, gave birth to an average-sized son; forty-eight hours afterward it was discovered that the child could not defecate. I was immediately summoned, and, upon examination, found that it was a case of congenital occlusion of the rectum and anus. After explaining the nature of the case, and how it would have to be treated, the entire family and friends, with the exception of the father, objected to any surgical interference. As it was late in the evening, and the atresia giving rise to considerable colic and flatulence, I prescribed tinc. opii deod. in ⅓ to ½ drop doses every four or five hours, as indicated, and instructing them if they should conclude during the night on an operation to report to me the next morning, which they did in the affirmative. During the day, assisted by Dr. T. C. Clark, of Hamburg, Ia., I operated; the child being in excellent condition from slight narcosis induced by the anodyne taken previously. Placing it on its back on the leaf of a sewing machine, near a window, making the raphe a land-mark with a bistoury, I divided the abnormal bands crossing the anal site, which resembled cicatrices; passing the instrument in for about one inch, reaching the cul-de-sac, which terminated just above the internal sphincter ani muscle. Whilst dividing the skin and abnormal tissues the child strained quite hard, which assisted very materially as a guide in the operation. On entering the tube the meconium flowed quite freely; the child ceased crying, and seemed to enjoy his new condition. There was no hemorrhage, nor injury done to the urethra or sphincter ani muscles, although I did not use a sound, as recommended by some authors. After the cutting was done Dr. Clark passed a dilator into the incision, stretching the parts until we felt assured that the abnormal tissues were well broken down. The child has enjoyed excellent health since the operation; its bowels have never given it any trouble. The third day afterwards I visited the patient, and used a dilator in order to ascertain the condition of the case, which was unnecessary, as the meconium was keeping the parts from adhering, and in good order—patient scarcely complaining when evacuating its bowels.

T. G. STEPHENS, M.D.

SIDNEY, IOWA.

MACKENZIE, the chess-player, is dying of phthisis.

Book Notices.

DRS. BOURNEVILLE AND BRICON'S MANUAL OF HYPODERMIC MEDICATION. Translated by G. ARCHIE STOCKWELL, M.D., F. Z. S. Physician's Leisure Library. George H. Davis, Detroit, Mich., 1890. Pp. 158. Cloth, 50c., paper, 25c.

This is a useful little book on a subject of importance to every practitioner.

VIRCHOW'S ARCHIVES OF PATHOLOGICAL ANATOMY, PHYSIOLOGY AND CLINICAL MEDICINE.

No. 3 of Vol. X of Eleventh Series, contains a contribution in part on The Congenital Fistulæ of the Neck: Their Anatomical Significance, and Relations to Allied Bronchial Defects. By K. Von Kostanecki and A. Von Mielecki, of the Berlin Anatomical Institute.

They present a full history of the literature of the subject, and notice the fact that though congenital, they do not always present an external opening at birth, but sometimes a swelling which soon breaks, forming an external opening, and sometimes this swelling and the subsequent opening are delayed to puberty, and in at least one recorded instance, to the age of thirty.

Dr. Richard Wagner, of Halle, furnishes The Mid-position of the Vocal Chord in Paralysis of the Recurrent Laryngeal Nerve. He recites several series of experiments and their results. In some of these experiments he cut the recurrent laryngeal alone, in others the superior laryngeal alone, in others both, in others the recurrent laryngeal and the crico-thyroid muscle. He draws the conclusion that the primary mid-position is due to the action of the crico-thyroid alone (the superior laryngeal supplying this muscle), and not to the fact that the fibres reaching the crico-arytenoideus posticus are more superficial, and therefore earlier affected than those of the adductors supplied by the same nerve; not to fibres from the superior laryngeal reaching the other muscles through the recurrent laryngeal; not to the existence of a special centre for the fibres of the recurrent which go to the crico-arytenoideus posticus, which are the views that have been, up to this time, generally advanced and accepted.

Dr. Alexander Favre contributes On White Infarctus of the Human Placenta, tracing connections between fœtal endarterites presenting thickened intima due to cell proliferation, organized masses of fibrin, debilitating general diseases, and inflammatory uterine diseases preceding pregnancy, and the condition in question.

Dr. G. Armauer Hausen, of Beyen, writes on the question, Is Leprosy Contagious? and as a result of investigation of the disease in Sweden, the Sandwich Islands and North America, ends with these words: "The result of my observations are in happy harmony with my theoretical conclusions, and I consider rather clearly established that leprosy is not a contagious disease."

Prof. S. M. Lukjanow, of Warsaw, contributes On the Influence of Partial Excision of the Liver on the Biliary Secretion, detailing a series of experiments with a view to its determination. He concludes that on removal of from 19 to 43 per cent. of the liver, no change in the character of the bile secreted, as to either the watery or solid constituents, can be made out.

Writing on Perforating Ulcer of the Nasal Septum, Dr. M. Hajek, of Vienna, describes the pathological process minutely, as commencing in the mucous membrane, with a diphtheria-like exudate, resulting in exfoliation, and consequent deprivation to the cartilage of its source of nutrition, which leads to necrosis and thus to perforation. He regards the disease as most frequently of a tubercular nature.

Dr. Walter Kruse, of Naples, writes on Blood Parasites. He finds parasites in the blood of frogs, inhabiting the red corpuscles, for the entrance of which he cannot account, as he finds them in no other parts. The organisms resembled most closely the Gregainida Bütschli.

The Medical Digest.

FRENCH NOTES.

BY A. E. ROUSSEL, M.D.

CEREBRAL ABSCESS WITH EPILEPTIC ATTACKS CURED BY TREPANNING.—M. Hans Schmid, of Stettin, presented a patient cured of cerebral abscess. His patient had received a severe wound over the parietal bone which, after having suppurated for a long time, was cured with the exception of the existence of a narrow fistula.

Six weeks after the injury there occurred the first attack of epilepsy, which was soon followed by others of greater frequency.

An examination revealed the possibility of an abscess under the skull, communicating exteriorly by the sinus, which discharged a sero-purulent liquid.

Trepanning was performed. An abscess existed, in effect, situated in the substance of the brain.

The cure was complete, and the epileptic attacks have completely disappeared.—*Bull. de Thér.*

COUNTER-INDICATIONS OF ANTIPYRINE.—Antipyrine is counter-indicated:

1. In all cases of feeble heart.
2. In diphtheria, when we have indications of the existence of myocarditis.
3. After profuse hemorrhage.
4. During menstruation, and in dysmenorrhœa.
5. In broncho-pneumonia in general, and in fibrous pneumonia complicated by pulmonary œdema.
6. In the last stages of pulmonary phthisis.
7. In all cases of extreme feebleness and emaciation, and in the advanced stages of chronic fevers.

—*L'Union Médicale.*

CREASOTE IN THE TREATMENT OF DISEASES OF THE RESPIRATORY ORGANS.—(*a*) For inhalations:

℞.—Creasote,
Chloroform,
Alcohol.....āā equal parts.

From five to twenty drops in atomizer; repeat these inhalations every three hours.

℞.—Iodoform..... 21 grains.
Creasote..... 4 drops.
Oil of eucalyptus..... 6 "
Chloroform..... 48 "
Alcohol,
Ether.....āā q. s. to make ½ ounce.

Five to twenty drops in atomizer; to be used every three hours.

(*b*) For internal use:

℞.—Creasote..... 24 drops.
Glycerine..... 1 ounce.
Syrup of orange flower..... 1 "

One teaspoonful every three hours.

℞.—Creasote,
Tincture of capsicum.....āā 10 parts.
Mucilage of gum Arabic..... .. 15 "
Distilled water..... 120 "
One teaspoonful, well diluted, at meal time.

—*La Bulletin Médical.*

INJECTION FOR GONORRHŒA (Brou).—

℞.—Opium..... 50 centigr.
Pulverized catechu..... 20 "
Saffron..... 1 gr.
Boiling water..... 200 gr.

Make infusion, filter, and add:

℞.—Acetate of lead (crys.)..... 1 gr. .50.
Sulphate of zinc (crys.)..... 3 gr.
M.—Sig. For injections.

POMADE FOR ALOPECIA (Monin).—

℞.—Gallic acid..... 3 grammes.
Essence of lavender..... 15 drops.
Vaseline..... 40 grammes.
Castor oil..... 20 "
M.—Sig. Apply with friction.

—*Journal de Maladies Cutanées.*

WINE OF CASCARA SAGRADA:—

1. ℞.—Fluid extract of cascara sagrada... 1 part.
Sherry wine..... 9 "
M.—Filter.

2. ℞.—Cascara sagrada..... 1 part.
Sherry wine..... 10 "
Macerate for eight days, press and filter.

These wines are administered in doses of a wine-glassful and over as a laxative.

ARISTOL IN GYNECOLOGY:—

1. ℞.—Aristol..... 5 grammes.
Oil of vaseline.....q.s.

Dissolve and add:
Gum Arabic,
Glycerine.....q.s.
to make five crayons three centimeters long.

2. ℞.—Aristol..... .50 to 1 gr.
Oil of cacao.....q.s.
For ten vaginal suppositories.

3. ℞.—Aristol,
Lard.....āā 5 grammes.
Lanoline..... 40 "
For pomade and ointment.

4. Solution of 10 per cent. in ether and oil of vaseline.

5. Can also be used as a medicinal soap.

℞.—Mutton suet..... 59.3
Olive oil..... 7.4
Caustic soda..... .... 22.2
Caustic potash at 380..... 11.1
100.0

Add Aristol dissolved in oil, 10 per cent.

—*Gazette de Gynæcologie.*

THE INDUCTION OF ARTIFICIAL LABOR.—In the obstetrical section of the Berlin Congress, M. Calderini (Italy) arrived at the following conclusions:

1. In the interest of the child one should abandon all attempts at the induction of premature labor with a measurement of less than 75 mm. c. b. in a rachitic pelvis.

2. In a narrow pelvis non-rachitic, antiseptic precautions permit of the induction of premature labor up to 85 mm. c. b., and even more in certain cases.

3. The mortality of infants born alive, as a result of the premature artificial delivery, may be diminished by special care.

4. Antiseptic precautions have rendered the induction of premature artificial labor, a great therapeutic resource in many maladies complicating pregnancy.

5. The best methods for inducing artificial delivery are, in narrow pelves, a douche made by an ordinary apparatus through the Fergusson speculum, and the introduction of a bougie up to the fundus of the uterus. In some cases it is convenient to associate puncture of the membranes with the above.

THE VAGINAL SECRETIONS.—M. Doderlein (Leipsic) made some investigations on the vaginal secretions, and found two varieties of the same; the normal secretions are very acid and contain epithelial cells, granular corpuscles, and non-pathogenic bacilli. The other secretions are alkaline or neutral, and contain globules of pus and micro-organisms of different nature and especially the coccus.

In the first case the vagina is not to be feared as an agent of infection during confinement; in the second case, on the contrary, it should be disinfected.

—*La Bulletin Médical.*

TRICHLORACETIC ACID AS AN ASTRINGENT AND CAUSTIC.—Ehrmann has employed this agent in the diseases of the nose and throat. He touches the affected parts with a crystal of the acid, when there is formed a localized white eschar which is rapidly detached. No inflammatory reaction in the vicinity, or unpleasant secondary phenomena. In 140 cases, 87 were cauterized but once, 30 twice, and of the remaining cases 3 to 5 times. Permanent cure in 122 cases. Ehrmann is satisfied that this acid will occupy first rank among caustics in the treatment of diseases of the nose and throat.

Trichloracetic acid may also be used with advantage as an astringent. The following formula is recommended by the author:

℞.—Pure iodine . . . . . 15 grammes.
Iodide of potassium . . . . . 20 "
Trichloracetic acid . . . . . 30 "
Glycerine . . . . . 30 "
Apply locally to the parts with absorbent cotton.

The taste of this solution is not disagreeable; it is followed by a slight burning sensation. The author has employed this solution in one case of follicular tonsillitis (cure after three applications), two cases of ozena (complete failure), fourteen cases of diffuse chronic pharyngitis (eight cures, six notably improved), and thirteen cases of dry pharyngitis (two cures, five marked improvements, four failures, two results unknown).—*La Médicine Moderne.*

TREATMENT OF BURNS.—At the hospital Friedrichshain, of Berlin, there is employed in cases of burns a dry dressing, which, according to Dr. Karl Bardeleben, gives "surprising" results.

The affected part is first carefully washed with carbolized water, two and one-half to three per cent., or else with a three per cent. solution of salicylic acid. The blisters then having been opened, the entire surface is dusted with finely pulverized sub-nitrate of bismuth, after which the parts are covered with absorbent cotton, which is renewed as often as it becomes impregnated with the secretions of the wound.

If the burn is very extensive, we may replace the powdered bismuth with a pomade of the same.

Dr. Bardeleben declares that with this dressing cicatrization is much more rapid, and the pain is more quickly relieved than with all other forms of treatment. And, an observation of importance, notwithstanding the large quantity of bismuth employed, there have never been observed any symptoms of intoxication.

PREPARED COTTON FOR BURNS:

R.—Solution of cocaine (two per cent.)	30	grammes.
Boric acid	2	"
Glycerine	4	"
Carbolic acid	1	"
Absorbent cotton	30	"

Sig.—For the dressing of burns.

—*La Médicine Moderne.*

TRANSLATIONS.

BY W. F. HUTCHINSON, M.D.

DR. GALOGNI, who has studied the subject of *amenorrhœa* for many years, has come to the conclusion that the best method of treatment for the condition is cauterization of the cervix with nitrate of silver. In his hands this remedy has never failed to give satisfactory results.

Nitrate of silver is favorably mentioned in the journals for this derangement by several gynecologists, but not one of them has given it a thorough trial, and he thinks it well worthy the attention of thoughtful practitioners. It works well even in the amenorrhœa of chlorotics.

In an interesting paper, by Professor Cantani, on *Fever and Antipyretics*, he makes the statement that in view of the fact that fever is caused either by diminished irradiation or by increased calorific production, the most rational treatment will be directed, not toward the dispersion of heat, but toward its increased production, and that, of all antipyretics, he considers cold water, freely given, to be the best.

—*La Riforma Medica.*

COLLOQUIAL LATINISTS.—At the close of the late congress, Professor Bacelli, of Rome, made a speech in Latin, speaking in the highest terms of the President, Professor Virchow, to which the learned savant replied in the same tongue, a feat not often attemptde in these days.—*La Riforma Medica.*

REMOVAL OF A PORTION OF LIVER FILLED WITH HYDATID CYSTS BY AN ELASTIC LIGATURE.—M. Terrillon communicates the case of a woman of fifty-three years, who suffered for several years with sharp pains in the right hypochondrium, coming on at certain marked periods. The diagnosis had been a cyst filled with calculi, and an explorative puncture, made in the swelling which existed in the right side, allowed one hundred grammes of hydatid liquid to escape, without diminishing the size of the swelling.

Laparotomy showed that he had to do with a diseased mass, about the size of two fists, composed of a part of liver tissue, occupying the edge of the organ, and totally filled with little hydatid cysts.

A line of demarcation sharply separated the diseased tissue from the rest of the organ, which appeared quite healthy.

An elastic ligature was firmly applied at the point of this line. Almost immediately the ligature seemed to make a pedicle, and the part below the compressing force became turgescent. This was fixed outside the body by a few stitches of suture, and the rest of the wound closed. Iodoform antisepsis.

Little by little, the part of the liver thus pediculated died, without producing any general reaction. After eleven days, as there was a slight elevation of temperature, M. Terillon divided the pedicle. There remained a large wound which cicatrized in thirty days. In fact, the patient was completely cured and regained a normal weight and strength.

This is the first case on record where so large a resection of the liver was followed by cure.

—*La Medicine Moderne.*

A STUDY OF THE THERAPEUTIC ACTION OF THEOBROMINE AND DIURETINE (Mme. Koundjy Pomerantz).—The work of experimental therapeutics, carried on at the laboratory of Cochin Hospital, has recently brought to light a new preparation, called diuretine, which is said to have a more powerful action upon the kidneys in increasing the flow of urine than any substance yet known. It is made by combining one molecule of theobromine, one of hydrated soda, and one of salicylate soda. It is without color, without odor, and easily soluble in water. After a series of studies upon animals, the following conclusions were arrived at:

1. Diuretine, in doses of from three to five grammes, given in one gramme doses every three or four hours, increases largely the urine flow.

2. It attacks directly the renal epithelium; therefore we should not employ it in any case where patients are affected by any considerable organic diseases of the heart.

3. Under the influence of this drug, heart contractions do not change at all, or but very little.

4. It augments rapidly the flow of urine, and the diuresis keeps up three or four times as long as with caffeine.

5. The patient does not readily become accustomed to the medicine.

6. It does not produce difficulty of urination. Passage of water is not accompanied by smarting of urethra, even when the dose is increased to five grammes a day.

7. It has no action upon the central nervous system, and should be administered in milk or chocolate before meals.

8. It produces the best possible effects in cases of dropsy, where diuresis is still possible.

9. When the kidneys are much diseased it has no effect.—*Bulletin General de Therapeutique.*

Medical News and Miscellany.

HOG cholera prevails near Spring Valley, Ohio.

IN France the second of twins born is legally the eldest.

CHOLERA is still prevalent in Tokio and some other parts of Japan.

MEASLES caused 1,033 deaths in Paris during the last twenty weeks.

THERE is a vacancy on the Obstetrical Staff of the Philadelphia Hospital.

THE Chinese are said to endure change of climate better than any other race.

CHICAGO is getting ready for the fair by taking steps to purify her sewerage.

DR. EGBERT H. GRANDIN has removed to 36 East Fifty-eighth street, New York.

SANITATION is so unpopular in Spain that three doctors have been killed by the mob.

PROF. PARVIN and Dr. James Collins returned last week from Europe, on the Rhynland.

DR. N. C. VANDERSLICE, of Phœnixville, a prominent citizen, was killed in the accident last week on the Reading; and Dr. D. F. Solliday, of New Ringgold, had his arm severely injured.

Dr. Lawrence Turnbull is back from Jamestown.

Dr. Horatio C. Wood will soon be back from Europe.

Dr. E. J. Moore is home from a five months' tour of Europe.

By feigning paralysis a man was lately saved from two years' in prison due him.

Pfitzner says that in 36 per cent. of cases examined the little toe had only two phalayes.

Dr. D. H. Coover, of Harrisburg, was in Philadelphia this week. He stopped at the Lafayette.

Prof. William H. Pancoast is back from Europe, and gives an interesting account of his travels.

It is said that India contemplates the formation of a leper colony on an uninhabited island in the Indian ocean.

Dr. Pendergrast, of 3722 Baring street, has returned from a trip through Nothern New Jersey with his horse and buggy.

Dr. A. R. Shaw has entered a civil suit for slander against C. W. Clymer, who had denied Shaw's right to the title of doctor.

Dr. J. B. Mattison writes that there is an error in the statement that tincture of iron colors the urine of an opium habitué blue.

Dr. W. C. Wile, the popular and brilliant editor of the *New England Medical Monthly*, is seriously ill with an affection of the kidneys.

Dr. Horace T. Evans has left an estate valued at $500,000, which he has ordered, in his will, to be divided chiefly among his relatives.

A reception was given by Dr. Benjamin Lee at his residence, 1532 Pine street, last week, to the members of the Orthopedic Association.

We are in receipt of a report from the Chicago Pasteur Institute, of the work done during July and August, which is exceedingly favorable.

Gladstone is said to advocate the free importation of American pork; believing that the danger of disease therefrom is confined to southern climates.

Dr. Wm. M. Angney has brought suit against the city to recover ten thousand dollars, for damages sustained by his property by the bursting of city water pipes.

The supposed leprosy in New Caledonia turns out to be ringworm. We would recommend to the physicians of N. C. a careful perusal of Shoemaker on Skin Diseases.

A new quarterly magazine of philosophy, science, religion and sociology, entitled *The Monist*, will be published in October by the Open Court Publishing Company of Chicago.

A Russian Jew was arrested last week and placed in the Central station, Pittsburgh, on a charge of vagrancy, and upon being examined by physicians was found to be in an advanced stage of leprosy; he is supposed to be the same man who appeared like an apparition in a little Ohio town, threw the place into spasms and then disappeared.

The fund accruing from a legacy to the city by Dr. Benjamin Franklin, which, under the terms of his will, is now available, amounts to the handsome sum of $100,000.

The bark Monrovia arrived in Boston with her crew prostrated with beri beri.

Many men who are not on barks have been prostrated with beery-beery.

Dr. Wetherill has been investigating another lunacy case at Mt. Carmel, Pa., where a family refuses to send an insane member to an asylum, and keep him chained to the floor.

Dr. Mendel, of Berlin, announces that he has discovered that coffee intoxicates. It is barely possible that some man who has been chewing coffee has basely imposed upon the doctor.

Most of the nurses who signed a protest against the admission of Miss Ida Grayson, colored, as a pupil nurse in the Training School for Nurses at the Philadelphia Hospital, have withdrawn their names.

The Boylston Prize, of the Harvard University, for 1890, amounting to two hundred dollars, has been awarded to Dr. H. A. Hare, for an essay entitled: The Uses and Value of Antipyretics in the Treatment of Fever.

Messrs. H. K. Mulford & Co., whose laboratory was destroyed by fire September 5, have removed their laboratory to 2132 Market street, which is especially equipped for their increasing business. It was opened September 15.

The body of a woman named Goeda was exhumed at Szegedin for the purpose of an autopsy. When the coffin was opened it was found that the woman had been buried alive, and that she had given birth to a child in the coffin.

Dr. Nathan F. Mossell, who bears the honorable distinction of being the first colored man to graduate from the University of Pennsylvania, has been acquitted of a charge of criminal malpractice unjustly brought against him.

Seven drops of medicine which Mrs. Richards, of Turtle Creek, bought at a general store, nearly killed her infant. The medicine had been purchased from a Pittsburgh firm, which had pasted paregoric labels on bottles filled with laudanum.—*Record.*

The dispute over the appointment of visiting physicians to the Philadelphia Hospital has again been brought up in the courts; the Mayor holding that as professional experts these gentlemen are not required by law or justice to pass examinations.

Pasteur, the eminent physician of Paris, has been engaged to deliver a course of lectures before the Michigan College of Medicine and Surgery at Detroit the coming winter. A French student of the college will interpret the great man's words to the classes.

Dr. M. M. Moore, a leading physician practising in Wesleyville, was recently married to Dr. Mary Burnham, a physician of the eclectic school. After the wedding the newly-married doctors went to Dr. Moore's home in Wesleyville, and there the doctor, who was a Methodist divine for half a century, officiated at the wedding of his daughter, Miss Belle Moore, to Mr. Edward Chambers Bonnell, a prominent young business man of Cleveland.

A MORNING paper says that Prof. Joseph M. Hirsh, of Chicago, has exhibited to one of its reporters the process by which he is enabled to extract aluminum from clay at a cost of only a few cents per pound, and declares the process is entirely different from any known to the books.

THE actress, Marie Hock, who made her *début* in New York, is dead. Her death was due to a mistake made in a prescription. Her physician ordered a powder for her, which was prepared by a chemist, and either the doctor or the chemist made a blunder. An investigation is proceeding.

DR. MARY FISHER, teacher of drawing in the Girls' Normal School, will soon resign to take charge, as resident physician, of St. Clement's Hospital, at Twentieth and Cherry streets. Dr. Fisher has been connected with the Normal School for over twenty years. She is a graduate of the Women's Medical College.

THE gold medal of the British Medical Association was conferred upon Surgeon Parke of the Emin Pasha Relief Expedition, at the annual meeting of the association on July 21. The recipient was given a most hearty and enthusiastic welcome by the association. Mr. Stanley, who intended to be present, was prevented by illness.

A LARGE number of cases of diphtheria of a very virulent type have broken out in the Frogtown portion of Pittston, and fears are expressed by the physicians that it will become epidemic, There is no board of health there, but the school board and borough authorities are making earnest efforts to stamp the disease out.

DR. WILLIAM PEPPER, who went abroad as a delegate to the International Medical Congress, was to have been much honored as the provost of the University, and preparations were made for his entertainment, but in Antwerp he was seized with a violent attack of influenza and was unable to attend the Congress at all. He is now much improved and will return shortly.

JAPAN, NAGASAKI-KEN, CHOLERA.—The United States consul reports 578 new cases of cholera in Nagasaki-ken, and 306 deaths therefrom, during the period from July 25 to August 3, 1890. From the outbreak of the epidemic until August 3, 1890, there have been officially reported 1,286 cases, and 727 deaths. At the date of the report, August 3, there were 389 cases under treatment.

MESSRS. W. H. SCHIEFFELIN & Co., of New York, are constantly getting up new preparations. Their tablets Sulphonal et Phenacetine, fifteen grains, are composed of a combination of two of their great remedies—Sulphonal-Bayer, ten grains, Phenacetine-Bayer, five grains. Their seven and one-half grain tablets are composed of Sulphonal-Bayer, five grains, and Phenacetine-Bayer, two and a half grains.

KEMMLER'S DEATH PAINLESS.—Dr. George C. Fell related, at a meeting of the American Society of Microscopists, held in Detroit, that Kemmler's blood had been examined with the microscope immediately after his execution, and that it was indicated therefrom that the criminal's death was instantaneous and painless. The blood showed interesting changes. His theory is that death is not due to the lesion of the tissues, but to a shock such as often results from surgical injury.

NEW PATENTS :—

PATENTS GRANTED SEPTEMBER 16, 1890.

Alcohol manufacture	Guignard & Hedouin	Paris, France.
Rectifying and distilling alcohol	E. A. Barbet	Paris, France.
Suspensory bandage	A. Dent	Le Mars, Iowa.
Extract-making apparatus	G. S. Andres	San Francisco, Cal. (two patents.)
Continuous rectification of alcohol, spirits, etc	E. A. Barbet	Paris, France.
Teeth-separator	Ivory & Wayne	Philadelphia, Pa.
Tonic beverage	W. S. Hicks	Ann Arbor, Mich.
Truss	C. E. McCandliss	Atlanta, Ga.
Truss pad	C. S Leonard	Glover, Vt.

TRADE-MARKS REGISTERED SEPTEMBER 16, 1890.

Salve. (The words "Monte Christo," the portrait of William H. Howard, the applicant, and his fac-simile signature)	W. H. Howard	San Antonio, Tex.

LABELS REGISTERED SEPTEMBER 16, 1890.

"Louis M. Boucher's Cholera Cure," and the following eight labels, all registered by Fred. R. Hanrath, Cleveland, O., as titles for Medical Tinctures, viz.: "Euonymus," "Epilobium," "Dioscorea Vil," "Asclepias," "Hamamelis," "Chionanthus," "Digitalis," "Caulophyllum,"	Boucher & Gilbert	Manville, R. I.

PATENTS LAPSED SEPTEMBER 16, 1890.

Medicine-case	M. O. Baldwin	Wamego, Kansas.
Disinfectant-package	W. P. Tenny	Boston, Mass.

PATENTS ISSUED SEPTEMBER 9, 1890.

Dental forceps	B. E. Burger	Merrill, Wis.
Dental vulcanizers	A. H. Stoddard	Boston, Mass.
Substitute for iodoform	Messinger & Vortman	Aix-La-Chappelle, Germany.
Druggist's label-case and attachment for bottles and jars	O. E. Given	Stuart, Ia.
Liniment	W. C. Summers	Forest City, Ark.
Measuring vessel	J. O. Chamberlain	Kirkville, Ia.
Topical remedy (medicine)	Blume & Loving	Walhalla, Tex.

TRADE-MARKS ISSUED SEPTEMBER 9, 1890.

Medicated prune syrups. (The word "German" and the representation of a plum)	C. H. Klauenberg	Carlinville, Ill., and St. Louis, Mo.
Antiseptics and germicides. (The word "Chloro-Phenique" on a ribbon extending horizontally from a disk having heraldic features upon it)	E. T. Jester & Co.	St. Louis, Mo.
Face-bleaching ointment. (The word "Marvelone")	A. H. McDonnald	Albany, N. Y.
Blood-purifiers and alteratives. (The representation of a kicking mule with a rider on his back)	Bill C. Nye Medical and Chemical Syndicate	Bradford, Pa.
Liquid toilet preparations for the hair. (The words "Tropical Spray)	E. S. Couch	Fredonia, N.Y.
Preparation for the cure of catarrh. (The word "Cephaline" inclosed in an equilateral triangle having in each of its angles the capital letter "C")	D. D. Harr	Belmond, Ia.
Suppositories for uterine diseases. (The three words "Compound Clover Blossom," each word being within a link of a chain of intertwined clover blossoms)	Dr. J. Moffatt Medicine Co	Chicago, Ill.

LABEL ISSUED SEPTEMBER 9, 1890.

"Coca-Glycerite Suppositories"	The Goshen Pharmacal Co	Goshen, Ind.

(No patents lapsed on above date.)

CHARLES J. GOOCH, *Patent Attorney.*

LOCK BOX 76, WASHINGTON, D. C.

TO CONTRIBUTORS AND CORRSEPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from August 30, 1890, to September 12, 1890.

Leave of absence for one month, to take effect on or about October 20, 1890, is hereby granted First Lieutenant Leonard Wood, Assistant Surgeon, with permission to apply for an extension of one month. S. O 74, par. 1, Department of California, San Francisco, Cal., August 30, 1890.

Leave of absence for one month, to take effect September 15, 1890, is granted First Lieutenant Theodore F. De Witt, Assistant-Surgeon. S. O. 76, Headquarters, Department of Texas, San Antonio, Texas, Sept. 1, 1890.

APPOINTMENT.

BAXTER, COLONEL JEDEDIAH H., Chief Medical Purveyor. To be Surgeon-General, with the rank of Brigadier-General, August 16, 1890, *vice* Moore, retired from active service. Headquarters of the Army, A. G. O., Washington, September 1, 1890.

Leave of absence for one month, on surgeon's certificate of disability, is granted Major A. A. Woodhull, Surgeon, with permission to go beyond the limits of the department. Par. 1, S. O. 122, Department of the Missouri, September 5, 1890.

By direction of the Acting Secretary of War, First Lieutenant Nathan S. Jarvis, Assistant-Surgeon, is relieved from duty at Fort Verde, Arizona Territory, and will report in person to the commanding officer, San Carlos, Arizona Territory, for duty at that station. S. O. 208, par 2, A. G. O., Washington, D. C., September 5, 1890.

Leave of absence for one month is granted Captain Edward C. Carter, Assistant-Surgeon. Par. 2, S. O. 108, Headquarters Department of the Columbia, September 6, 1890.

By direction of the Acting Secretary of War, the following changes in the stations and duties of officers of the Medical Department are ordered: Major Charles L. Heizmann, Surgeon, is relieved from duty at San Antonio, Texas, and will report in person to the commanding officer at Fort Clark, Texas, for duty at that station, to relieve Captain Edward B. Moseley, Assistant-Surgeon, who, upon being relieved by Major Heizmann, will report in person to the commanding officer at San Antonio, Texas, for duty at that station. S. O. 211, par. 23, A. G. O., Washington, D. C., September 9, 1890.

By direction of the Acting Secretary of War, Major Joseph K. Corson, Surgeon, is relieved from duty at Fort Sherman, Idaho, and will report in person to the commanding officer, Washington Barracks, District of Columbia, for duty at that station. S. O. 212, par. 4, A. G. O., September 10, 1890.

By direction of the Acting Secretary of War, a board of medical officers, to consist of Colonel Edward P. Vollum, Surgeon, Major George M. Sternberg, Surgeon, Major Albert Hartsuff, Surgeon, Captain William E. Hopkins, Assistant-Surgeon, is appointed to meet in New York City, on October 15, 1890, or as soon thereafter as practicable, for the examination of candidates for admission into the medical corps of the army. S. O. 213, par. 8, A. G. O., Washington, D. C., September 11, 1890.

By direction of the Acting Secretary of War, leave of absence for three months, commencing about October 1, 1890, is granted Captain Frank J. Ives, Assistant-Surgeon, provided one of the Acting Assistant Surgeons serving in the Department of the Missouri can be assigned to duty in his stead at Fort Sill, Oklahoma Territory, during that time. Par. 26, S. O. 213, A. G. O., Washington, D. C., September 11, 1890.

By direction of the Acting Secretary of War, Captain John J. Cochran, Assistant-Surgeon, now on duty at Fort Adams, Rhode Island, will proceed to Mount Vernon Barracks, Ala., and report in person to the commanding officer at that post for temporary duty, and, on completion of the duty contemplated, he will return to his proper station. S. O. 214, par. 2, A. G. O., Washington, D. C., September 12, 1890.

By direction of the Acting Secretary of War, the leave of absence for seven days heretofore granted Major Henry McElderry, Surgeon, by the Superintendent of the U. S. Military Academy, is extended to November 10, 1890, on account of sickness. S. O. 214, par. 5, A. G. O., Washington, D. C., September 12, 1890.

By direction of the Acting Secretary of War, leave of absence granted First Lieutenant William N. Suter, Assistant-Surgeon, in Special Orders No. 149, June 26, 1890, from this office, is extended fourteen days. S. O. 214, par. 6, A. G. O., Washington, D. C., September 12, 1890.

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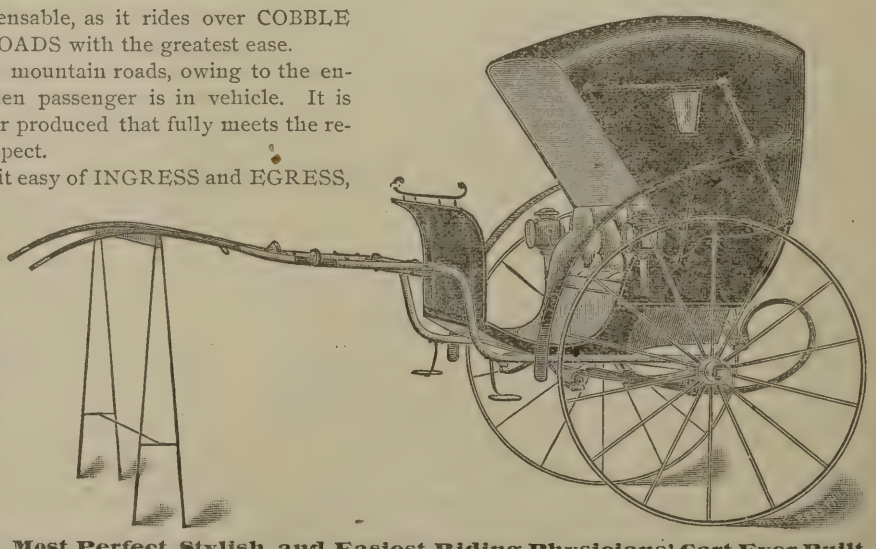

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The Times and Register.

Vol. XXI, No. 14. NEW YORK AND PHILADELPHIA, OCTOBER 4, 1890. Whole No. 630.

PAGE

ORIGINAL ARTICLES.

THE EPIDEMICS OF DIPHTHERIA, SCARLET FEVER, AND LA GRIPPE AT THE OHIO SOLDIERS' AND SAILORS' ORPHANS' HOME, XENIA. By C. M. Galloway, M.D. 301
DRUNKENNESS—WHAT IS IT? By T. L. Wright, M.D., Bellefontaine, O. - - - - 304
PRACTICAL OBSERVATIONS ON THE PHYSIOLOGICAL ACTION AND THERAPEUTIC USES OF SOLANUM NIGRUM AND ATROPA-BELLADONNA. By T. G. Stephens, M.D., Sidney, Iowa - - - - - - - - - - - - - 307
SUPPURATING ULCER OF THE CORNEA. By Edward Jackson, A.M., M.D. - - - - - 308

EDITORIALS.

THE ECLECTICS - - - - - - - - - - - 310
ACCLIMATIZATION - - - - - - - - - - 310

ANNOTATIONS.

State of Urine in General Paralysis - - - 311
Singular Cigarette Accident - - - - - - 311

PAGE

The Use of Cannabis Indica in the Treatment of Neuroses and Gastric Dyspepsia - 311
Dilatation of the Stomach as a Cause of Neurasthenia - - - - - - - - - - - - 311

CINCINNATI LETTER - - - - - - - - 312

PAMPHLETS - - - - - - - - - - - - 313

THE MEDICAL DIGEST.

Cholera. *Hueppe* - - - - - - - - - - 309
Formula for Diuretin - - - - - - - - - 309
Diphtheria. *Babchinski* - - - - - - - - 309
Case of Profound Depression from a Discharging Empyema. *Smith* - - - - - 314
Slight Evidence of Insanity Resulting from Gynecological Work. *Stom* - - - - - 314
Sulphocarbolate of Zinc. *Bolton* - - - - 314
Hepatic Abscess. *White* - - - - - - - - 314
The Essential Pathology of Paroxysmal Hemoglobinuria. *Copeman* - - - - - - 314
Maternal and Paternal Impressions. *Brown* 314
Milk Poisoned by Plants. *Rhea* - - - - - 314

PAGE

A Mechanical Plan of Treatment of Chronic Dyspepsia. *Cséri* - - - - - - - - - - 314
Elixir of Burdock Seed as a Menstrual Regulator. *Ayer* - - - - - - - - - - - - 314
Puerperal Eclampsia. *Ceeil* - - - - - - 314
Syphilitic Fever in the Puerperal Period. *Leblond* - - - - - - - - - - - - - - 315
Bone-grafting. *The Lancet* - - - - - - - 315
Transfusion of Lamb's Blood in Typhoid Fever. *Jenkins* - - - - - - - - - - - 315
Drugs that are Believed to Conserve the Tissues. *Reichert* - - - - - - - - - - - 315
Tabetic Amaurosis. *Clevenger* - - - - - 316
Parasitic Nature of Scurvy. *Domingos Freire* - - - - - - - - - - - - - - - 316
Demonstration of Amœba Coli in Dysentery. *Lafleur* - - - - - - - - - - - - - - 316
Kraurosis Vulvæ. *Smith* - - - - - - - - 317

MEDICAL NEWS AND MISCELLANY, 318
ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - - - 324
NOTES AND ITEMS - - - - - - - - iv, xiv

Original Articles.

THE EPIDEMICS OF DIPHTHERIA, SCARLET FEVER AND LA GRIPPE AT THE OHIO SOLDIERS' AND SAILORS' ORPHANS HOME, XENIA.[1]

BY C. M. GALLOWAY, M.D.,
Physician at the Ohio Soldiers' and Sailors' Orphans Home.

A HISTORY of the late epidemics at the Ohio Soldiers' and Sailors' Orphans Home, at Xenia, Ohio, will be better comprehended in the light of a brief history of the founding and growth of this noble institution, so little of which is known to the medical profession of our State and to the public at large. This home for soldiers' and sailors' orphans had its birth in the year 1869, in the councils of the Grand Army of the Republic (foremost of which was Forsyth Post, of Toledo, Ohio), and in the hearts of the philanthropic citizens of Xenia and Greene county, fired by the burning eloquence of Chaplain G. W. Collier, now Past Chaplain-in-Chief of the G. A. R., and Rev. P. C. Prugh, then pastor of the Reformed Church of Xenia.

On June 31, 1869, at a meeting of citizens of Xenia, the assembly, catching the spirit of the comrades of the G. A. R., then and there contributed the sum of $16,500 for this worthy object.

In the meantime the citizens of Xenia and the representatives of the G. A. R. were actively and harmoniously at work. The press, all over the State, favored the project, and advocated the erection of suitable buidings at once.

The sum grew to $30,000, and real estate was purchased one mile southeast of Xenia—a free-will offering of our patriotic citizens—toward erecting a permanent home for the children of the heroes, who had fought and fallen in defense of their country.

"To the Grand Army of the Republic in Ohio, to the generosity of the patriotic citizens of Xenia and Greene county, and to the State at large, is awarded the honor of establishing and maintaining one of the noblest institutions known to the civilized world—The Ohio Soldiers' and Sailors' Orphans Home."

In the year 1870, seventy-one children were gathered at Xenia and supported by the private subscriptions of her citizens, and when a few months later the first executive committee met in Xenia, they found one hundred children in their temporary quarters, and applications pending for many more.

By act of legislature the Ohio Soldiers' and Sailors' Orphans Home became a State institution April 4, 1870, and at that time embraced one hundred acres of land and buildings accommodating two hundred and fifty children. Generous yearly appropriations from the State, intelligently expended by a board of trustees, has enlarged it, until now it has become a great educational and training home, in the broadest sense of the term, accommodating almost 1,000 children, with one hundred and thirty-five adults engaged in their care and training.

"It embraces two hundred and ninety-three and twenty-three one-hundredths acres of land and forty-eight buildings, composed of an administrative building three stories high, with large dining-room attached, twenty-eight two-story cottages, two three-story school houses, chapel, hospital, laundry, industrial building, engine rooms, gas-house, greenhouses, and all the necessary farm buildings."

Great as is the capacity of this Home, requiring a yearly appropriation of almost $200,000 for its maintenance, there are to-day almost 1,000 applications on file awaiting admission, for "all limitations as to the death, or cause of death, of the father, have been removed, and any child whose father served in the army or navy, and is now in indigent circumstances,

[1] Read before the Ohio State Medical Society, Columbus, O., June 6, 1890.

is entitled to admission." Children are taken in as young as two years of age, and are discharged, boys at sixteen, and girls at eighteen years of age. These facts are compiled largely from Hill's History of Greene county.

As to the former sanitary condition of the Home, the statistics show that from October, 1871, to October, 1889, there were thirty-nine deaths from various causes, two of these being accidental.

From October 4, 1889, to March 16, 1890, there were thirty-eight deaths among the children; of this number two died of scarlet fever, one from an overdose of aconite mixture, taken while in delirium, during an attack of la grippe, and one from a complication of pulmonary and cardiac trouble.

A healthier natural location, for a children's home, could scarcely be found within the boundaries of our State, for, since the founding of the institution, a period of nineteen years, seventy-four deaths have occurred among the 4,220 children admitted, three of his number being accidental. Ever since the yeart 1886, diphtheria has been present in Xenia—it is there now—resisting the united efforts of physicians and health-boards at extermination. On the 29th of September, 1889, this disease made its appearance at the Home. Two boys in cottage No. 18 were attacked, one dying October 3, and the other October 7. These were the only cases occurring in that cottage. From this beginning the disease continued with more or less virulence, until April 15, 1890, when it ceased. During this time two hundred and fourteen cases among the children and twenty cases among the employés came under the observation of the physicians of the Home—in all, two hundred and thirty-four cases, with thirty-five deaths—a mortality rate of about 15 per cent. About one in ten of these cases presented, during convalescence, the usual sequelæ. A few suffered from relapse.

Scarlet fever, in a mild form, made its appearance about the middle of October. A little girl was attacked while absent on her vacation, and returned to the Home during the period of desquamation. The case was not discovered by matron or physician until others were attacked, and before this disease abated two hundred and forty cases came under our care. Two deaths, one complicated with cardiac trouble, occurred from this disease, and as sequelæ, three cases of acute nephritis, easily handled.

The almost entire absence of kidney complication in such a great number of cases was due, it is believed, to the fact that butter-milk was daily given in generous quantity to those able to bear it, from the day they were brought into the hospital until they were well. This disease, combined with diphtheria, made a serious and often fatal complication, from which a small proportion only of those thus attacked made recovery. Scarlet fever disappeared entirely from the Home about January 10, 1890.

La grippe made its appearance about the middle of January. This peculiar disease swept through the institution attacking about every child and employé. Over three hundred children were attacked and confined to their beds in their cottages from four to eight days, and at least one hundred more were confined to their dormitories for a few days, not being sick enough to be put to bed. The care and nursing of this great number of sick children devolved upon the matrons of the cottages, in addition to their usual daily duties, for the reason that all the hospital and convalescent wards, twenty in number, were filled with children sick and convalescing from diphtheria and scarlet fever complications. Besides, we found, from sad experience, that a la grippe throat was a more fertile field for the engrafting of diphtheria than was a scarlet fever throat—every child dying that came into the hospital with this complication.

Too much credit cannot be given to the teachers of the Home schools (formed by direction of the trustees into a corps of nurses for convalescing wards) for their constant and faithful services. When the schools were closed these ladies were given option of a vacation until the epidemics abated, or enroll themselves as nurses. Without exception, they volunteered to care for the sick children, and remained faithful to the trust reposed in them, although a number of them contracted diphtheria.

The matrons of the cottages are to be commended highly, in that they all remained among their children, caring for the well ones, nursing the sick ones, and, when necessary, enduring the privations of quarantine with their children for weeks and months cheerfully, and without a murmur, faithfully carrying out the following order, issued from the medical department at the beginning of the epidemics:

"Examine, carefully, every child's throat morning and evening, using the handle of a teaspoon to depress the tongue.

"Examine, carefully, every child's body, once daily, for eruptions, redness of skin, or scales.

"Children having redness of throat, or ulceration of tonsils, should be kept in their cottages until seen by the physician.

"Children having headache, chill, or loss of appetite, should be reported to the physician at earliest moment.

"Children complaining, should not be sent to school, neither detailed for work, until seen by the physician."

The faithful execution of the above order entailed upon the matrons, daily, an endless amount of care and toil, and ceaseless vigilance and attention accompanied this work. The following, from the Cincinnati *Commercial Gazette*, faithfully portrays a condition daily met by the physicians: "One of the greatest stumbling-block in the way of the physicians is the dread and fear of the disease and the hospital existing in the minds of the children, who, though probably suffering already with the disease, would deny that they were in any way ailing, and would endeavor to deceive their matrons and the physician in this respect, although always truthful and obedient." The ever-watchful eyes of the matron were, however, quick to detect disease, and contagious cases were immediately removed from the cottages.

Employés, as a rule, remained, and discharged duties assigned them, which, at times, were truly arduous.

The attachment and devotion of those in authority, of teachers, matrons, and employés, for the children, was truly wonderful. Parents will stay by the bedside of their children, sick and dying of contagious and loathsome diseases, with a devotion that death alone will quench. The world expects, and demands, parental and filial affection and care at all times, and especially in sickness and danger; yet, outside of the home-circle, as we all know, contagious and infectious diseases are shunned by all. I believe the pages of history may be searched in vain for another instance where the officers and employés of a State institution, surrounded for months by pestilence and death, unflinchingly stood at their posts, and heroically did their entire duty, when

hands and hearts grew tired and weary awaiting the day of deliverence, long delayed in its coming.

The following will illustrate the spirit of devotion that prevailed; Major Noah Thomas and his worthy wife, the superintendent and matron of the Home, at the outbreak of the diphtheria, were strongly advised by friends to remove their children, four in number, away from the Home to a place of safety. With that heroism that always inspires the true soldier, he replied: "My children are no better, and their lives are no more precious to me, than those of the nine hundred children of my dead comrades under my care. My children will stay here with me, at this Home, and take their chances with others;" and they did stay, although one of them was stricken with the dread disease, and he, also, was attacked.

Eight cases of pneumonia developed from la grippe; none of these proved fatal. A fatal case of phthisis pulmonalis brings us to the 15th of April, 1890, when our last case was pronounced convalescent; the closed schools and industries were opened, and teachers and pupils once more resumed their accustomed duties.

A complete history of these epidemics, with their daily toil and burdens of cares, anxieties, perplexities, hopes, fears, sickness, pain, sorrows, and deaths, can never be written. Daily contact was necessary to fully comprehend it.

October 10, 1889, found us in quarantine, and almost completely isolated from the outside world, with nine hundred and thirteen children enrolled and present in the cottages, eight hundred and fifty-four of these attending the schools daily.

These were dismissed by order of the Board of Trustees, and six large school-rooms fitted up and used as convalescing wards under the immediate supervision of Maj. G. M. Patterson, the efficient military instructor of the Home, who gave us valuable assistance.

The work becoming too great for one physician, the trustees, on October 27, secured the services of Dr. S. S. Wilson, of Xenia, who devoted the greater portion of his time to the care of the sick children until March 15, when, his services being no longer needed, he voluntarily retired from the work. His constant and devoted services were cheerfully given —to the great detriment of his private practice—and too high commendation cannot be awarded him for his self-sacrificing labor.

The State Board of Health took cognizance of our condition, in the person of its secretary, Dr. C. O. Probst. The defects of the heating arrangements, plumbing, ventilation, and sewerage were pointed out to him, and, after thoroughly inspecting our hospital, which he designated "a death trap," and approving our system of treatment, quarantine, and fumigation, he gave us the unwelcome assurance that we would not be free from diphtheria during the entire winter.

As our little hospital rapidly filled with sick, the trustees gave us three large rooms in the industrial building, and a double cottage with four large rooms, which, with those at the school building, made twenty wards for the sick and convalescing children of diphtheria and scarlet fever alone—the children sick from la grippe being kept in the cottages.

The past winter, as all will remember, was remarkable for the great number of wet and rainy days. Damp weather, we found, greatly increased our mortality rate and the number of new cases demanding treatment. Every cottage from which a case of diphtheria was taken was immediately quarantined, and the inmates fed by a detail of employés. In this manner eight of the twenty-eight cottages were put under strict quarantine two or more weeks, or until entirely free from disease. The inmates were then sent to convalescent wards in the industrial building, where they remained two weeks with their matrons; the cottages were thoroughly cleaned, painted, and whitewashed, all clothing and bedding fumigated and sent to the laundry to be washed in a strong solution of corrosive sublimate. The books, woolen wraps, pillows, tapestry, and carpets were subjected first to fumigation from burning sulphur—fifty pounds to each cottage—for seventy-two hours, and afterward to a dry heat of 275° for ten hours. This renovating process required about two weeks for each infected cottage, after which the inmates were returned. Notwithstanding all these efforts, two cottages, Nos. 1 and 4, had to be temporarily abandoned. Three times we took the children out of these two cottages, cleaned, fumigated, painted, and whitewashed the dormitories and living-rooms; washed, thoroughly, all clothing, beds, and bed clothing, and returned the inmates, and as often removed fatal cases of diphtheria, until we had taken out four from one and five from the other.

At one time Governor Foraker sent a committee, composed of Drs. A. G. Byers, of Columbus, and Jas. L. Wilson, of Greenfield, members of the State Board of Charities, bearing to us words of cheer, and, in his characteristic manner, said to us: "Buy, *at once*, everything that is needed for your sick children. The great State of Ohio will see that all the bills are paid."

This committee spent an entire day with the sick and convalescing children, and gave us valuable suggestions.

In February, Governor Campbell and the General Assembly of Ohio appointed a committee, composed of Drs. C. O. Probst and F. C. Hoover, of Columbus, and Prof. E. T. Nelson, of Delaware, members of the State Board of Health, to investigate the sanitary condition of the Home. The committee spent about three days with us. At their suggestion, the floors of the two infected cottages, 1 and 4, together with the plumbing, were taken out and replaced by new. The cottages were then put in order, and the children returned. No new cases have occurred in these buildings since. This committee also favored us with valuable suggestions.

Thus the weary days sped along, each day bringing new cases into the hospital, and sending into the quarantine wards others, who, properly bathed, disinfected and clothed, had passed through the crisis and were convalescing.

The following were the methods of quarantine: From the hospital the children were sent to the wards in the industrial building, and put in charge of nurses, where they remained two weeks. If no new cases developed, from there to the wards in the school building, where they stayed two weeks longer, when, if there were no new developments, they were sent to their cottages and kept under observation one week longer. They were then allowed to go to the dining-room and mingle with the children. Any child suffering from relapse was sent back to the hospital and passed through the wards again.

The continuance of these diseases, through so many months, very naturally aroused great anxiety among the parents and friends of the children all over the State. This anxiety was intensified an hundredfold by false and sensational individual reports and the

wild rumors printed in a few of the newspapers of the State. The *Cincinnati Enquirer* sent a special reporter to the Home to obtain the facts, and in its issue of November 25, 1889, is found an accurate newspaper account of our condition at that time. *The Xenia Gazette and Republican*, the *Newark Daily American* and the *Home Weekly* presented, from time to time, accurate reports, and did much to allay the fears of those whose loved ones were almost entirely cut off from communication with the great outside world and its sympathy.

In the month of January, Superintendent Thomas, enfeebled by an attack of la grippe, contracted diphtheria, and for six weeks his life was despaired of.

Mrs. Hardesty, the matron of the hospital, worn out with constant care and attention, suffered from a severe attack, of four weeks' duration, and at different times all our nurses contracted the disease. At one time nurses could not be obtained at any price, and a brave girl, eighteen years old, with a noble, Christian heart, volunteered to help us. After a few weeks' work, she was stricken down, and died in four days. Her brother, Wilber, aged sixteen years, came to her dying bedside, under protest of the physicians, and in a week afterward he died. Her mother, also, had a light attack.

We buried this brave girl in our beautiful little Home cemetery, among those she loved so well, and whose call for help she answered with life.

Among the recommendations made by the committee of investigation appointed by Governor Campbell and the legislature, were the following:

"A new hospital for general diseases should be built at once. It should not have less than one hundred and fifty beds, and be constructed on modern plans. The present hospital should be remodeled, by dividing the larger wards and providing a separate entrance to each, and used as a quarantine building. The heating of each ward should be properly regulated, and provision made for increasing the ventilation of each ward."

In searching for a cause for the diseases prevailing at the Home during the past winter, we have not far to go. Scarlet fever was brought to us by one of the children. La grippe was almost universal throughout our State, and we did not hope to escape its presence. As to diphtheria, it has prevailed in Xenia for the past four years; it was prevailing in our city last winter, and is present there now. A number of the employés live in Xenia, going to the Home every morning and returning at evening; besides, visitors daily go to and fro, not only from Xenia, but from different parts of the State. Under these conditions, intelligent minds were not surprised when diphtheria appeared among the children; indeed, it was a marvel it had not reached the Home sooner.

The cause for its continuance was not to be found in the overcrowded condition of the cottages, for they have always contained from thirty-two to thirty-six children, each. It was not due to the amount or kind of heat, or the method of ventilation of the cottages, for these have been the same for many years. Neither was it the fault of the plumbing or sewerage, for careful examination revealed little or no defect in either, although both were of old style and pattern. The drinking-water was from the same source as for the past nineteen years, and was not the cause of the disease from which we suffered.

The continuance of diphtheria is to be found in the fact, that hospital accommodations for two hundred and fifty children were, by our legislature, deemed as sufficient for nine hundred and fifty. Time and again had our lawmakers turned a deaf ear to our urgent calls for a more commodious hospital.

The little "death trap" building, with its seven small wards and fifty-two single beds, was all we had when the epidemics burst upon us with the force of a tornado. Had we had hospital accommodations in proportion to the number of children enrolled at the Home, I am prepared to make the statement that the epidemic of diphtheria could have been more easily and more quickly handled.

DRUNKENNESS—WHAT IS IT?

By T. L. WRIGHT, M.D.,
BELLEFONTAINE, O.

"Alcohol yields the simplest instance in illustration of the disturbing action on mind, of a foreign matter introduced into the blood from without; . . here we have the abstract and brief chronicle of the history of insanity."—*Maudsley.*

I speak of drunkenness from alcohol exclusively. Forms of intoxication from other sources have specific characteristics peculiar to themselves; besides, some of the most obnoxious and disabling qualities of drunkenness from alcohol are wholly absent in the inebriation that arises from the use of other toxic agents. Inferences of a conclusive character respecting these declarations will abundantly appear in the discussion of the nature of purely alcoholic drunkenness; so that special efforts to distinguish between the effects of opium, chloral, etc., on the one hand, and the effects of alcohol on the other, are not here necessary.

1. If insanity is an aberration of mind consequent upon the operation of a cause that is beyond the volitional control of an individual, then any one who is drunk from alcohol is, while the drunkenness continues, truly and absolutely insane.

The law not only admits this, but it insists upon it. The law actually draws from this fact—the uncontrollability of the mind in drunkenness—an inference, or *dictum*, that declares that "drunkenness is no defense for crime." This has the appearance of a most singular "quirk" it is true; especially when it is remembered the law also is positive in its assertion that "where there is insanity there can be no crime."[1]

But the legal conclusion is reached by a process of reasoning. It involves an assumption that is incorrect in point of fact—at least in a vast number of instances. The law claims in other words that the drunken man is a "voluntary madman"—a seeming contradiction in terms; something beyond human nature—as though a mind could, *being in a sound condition*, use its volition to destroy its volition. The great executive department of mind known as *will* can hardly be supposed, while operating in conjunction with a calm judgment and a healthy consciousness, to deliberately enact the rôle of *felo de se*. It surely is a very questionable assumption, to say the least, that a mind being sane, ever voluntarily places itself in a condition in which *it knows* (before hand) that it cannot control itself.

It is doubtful if the sound mind can conceive itself to be truly and sensitively unsound. The drunkard does not believe that he cannot control himself when intoxicated; albeit he truly cannot. Now, indeed, can any one, judging from drunken actions in others, conclude that in himself, similar exposures will of necessity occur, should he become drunken.

The feeling of the true and impregnable *ego* cannot be made to give place at will, to the intrusion of a morbid, a feeble and wavering personality.

[1] Med. Jurisp. of Inebriety, p. 129.

When alcohol is taken to fortify the criminal intent in the commission of offences, it does not act by directly strengthening a fierce and truculent nature. Alcohol never strengthens; never brightens anything or any faculty; it always tears down. It weakens, directly, all the powers of the mind. But it does not do this work *equally;* and thus it happens that, while the purpose, or will, in the commission of crime is *abstractly* diminished by drunkenness, still it may be *relatively* increased. What is the distinction between an abstract and a relative increment of the criminal purpose when the result is the same? When, in either case, the onset to crime is precipitated? There is this great difference; false reasoning, or reasoning from false premises, in such important matters of crime and punishment may readily be applied to interests where an indifference to the result may not exist, and where, therefore, harm and injustice may be done.

The simple explanation of the manner in which alcohol fortifies (relatively) the criminal purpose is this: The grosser faculties and the animal propensities of the physical man are more fundamental and immovable than the finer sensibilities of his moral nature. Hence, while the nervous inhibitory phenomena, which alcohol always produces, may exert very little effect upon the brutish instincts of the mere animal, they may seriously depress and deaden the moral feelings and sentiments. Thus criminality becomes practically relieved of all obstruction, all temporizing, all protest. Dr. T. S. Clouston, of Edinburgh, in a recent paper says: "It is now pretty generally recognized that as the moral faculties were the last to be evolved, they are commonly the first in brain disease to disappear." Again, Dr. C. says: "It should never be forgotten that alcohol poisons, as well as exhilerates. It affects more strongly the highest brain functions of emotion and control."[1]

The formula of the law is this: "He who while sane puts himself voluntarily into a condition in which he knows he cannot control his actions, must take the consequences of his acts; and his intentions may be inferred."[2] I have briefly discussed these propositions elsewhere and will not, therefore, dwell upon them here.[3] But one great fact is certain, and beyond dispute or cavil: the law is correct when it assumes that a man drunken from alcohol cannot control his actions.

2. The disastrous effects of alcohol upon the human constitution may be viewed from an almost infinite variety of points of observation, for these effects are universal. Alcohol assails every element of human character, and every organ and tissue of the human structure. The moment alcohol begins to operate upon sensibility a material change is observed in the personal aspect and demeanor. The eye, for instance, is brightened, and the movements are alert and restless. The countenance is at first half smiling, with an arch look. These appearances may change, and, indeed, they do change in the most radical and astounding manner, as drinking continues and the period of drunkenness is prolonged. It is important to know, however, that neither the appearance of a drunken man, nor his movements ever represent a sound and rational mind.

What is the cause of this brightness of the eye, this cunning and waggish look, and these airy movements of early drinking? Is alcohol really a mind stimulant, and has it aroused and intensified the intellectual vigor? Has it imparted to the mind augmented strength, and scope, and brilliancy? When men drink to exalt the mental character, to enlarge the mental horizon, to give steadiness and nerve to mental exposition, are they wise?

The depressing influence which alcohol exerts upon nervous sensibility every where—by virture of its anæsthetic properties—is well-known and universally recognized. It is not essential to the present discussion that the injuries inflicted by alcohol upon nutrition, oxydation, and upon the topic integrity of the organism, should be considered. It is sufficient to say that alcohol is sure to debase and weaken sensibility in every department of the nervous system. This, of course, applies to the bad impression of alcohol upon common sensation, as well as upon the perfection of the several senses. It is a fact that the acuteness of all the senses is not only dulled by alcohol, but their completeness is otherwise seriously impaired. The hallucinations and illusions of drunkenness are standing subjects for the gibes and small wit of carless minds.

As sensation is, so ordinarily will perception be. If things are presented to the mind in a dim and incomplete form, the mental pictures corresponding will be dim and misleading. If perceptions are received as through a haze or fog, the related ideas in the mind will partake of the character of such perceptions. If the objects of the exterior world are pictured upon the mind through sensation and perception in unnatural and distorted proportions, they cannot be conceived of in their right and natural aspects. They will appear like huge and curious phantasms, imposing false beliefs upon the intelligence, and leading to unnatural and irrelevant thoughts and speech and conduct.

Now alcohol, through the distorting operation of a nervous system poisoned by it, addresses the mind through the senses in the very way herein described. A perception is perhaps presented that is a caricature of nature. The co-operation of the several senses, also impaired and likewise testifying wrongly, confirms the mind in erroneous conceptions. The ludicrous pictures of the drunken imagination provoke mirth; the phantoms excite surprise; the imperfection and haziness of sensation exaggerate the ideas beyond what is reasonable and true; while a comparison of the alcoholic concepts with allied images in memory excites the most grotesque mental apparitions, and begets no end of silly conceits and drunken nonsense. The newly drunken man is at one and the same time in a condition of unbounded amusement and astonishment. He is in a new, though unreal and fantastic, world; and he shows this fact in his language, his movements, and his conduct. And all this is the sum and the nature of the "brilliancy" with which alcohol invests the minds of those who partake of it. Will it be claimed that these things imply a true and substantial increase in intellectual power and mental activity?

Knowledge acquired in drunkenness is of necessity imperfect, distorted, inflated; the drunken man perceives all things in false lights. He cannot be a truthful witness. His moral nature is inhibited and he don't care for truth; while his intellectual capacity is so deteriorated by the toxic power of alcohol that he is incapable of perceiving truth.

Language is of course a reflection of the mental condition. The drunkard, in his speech, is full of absurdities and extravagance, because his conceptions are incongruous and incoherent. He speaks

[1] Quar. Journal of Inebriety, July, 1890, pp. 229–232.
[2] Med. Jurisp. of Inebriety, p. 7.
[3] Journal of Am. Med. Association, March 8, 1890.

perchance the language of exaggeration; for his ideas are stilted and grown out of rational bounds through the deceptions inseparable from an indistinct and hazy sensibility. If he becomes sententious and tries philosophy, his expressions are simply inflated bubbles which the point of a little analysis and criticism will quickly expose and explode. Should he essay the rôle of orator, his mouthings and high-sounding periods will, upon examination, prove to be pure and absolute emptiness. His pretentious efforts clothe no useful thoughts, and represent no sublime emotions. The drunken mind is an incompetent mind; yet it has ruled nations, spoken with authority and impudence, made war, fought battles; but always, beyond a reasonable doubt, to the detriment of mankind and the substantial injury of the human race. Alcohol, like a robber and ruffian, habitually overcomes the modesty of true merit. This is the sum total of drunkenness with respect to its mental *status*. Its literature, its legislation, its statesmanship, its oratory—all that it is or has been, or can be—are shams.

All this does not look as though alcohol could ever be useful in strengthening the mind. In truth, drunkenness is itself helpless. It is a condition beyond the sphere of will; for it is inaugurated and maintained by physical causes over which mind can have no authority. The drunken man always believes in *himself*. To his mind there is no such thing as doubt. The man with an insane delusion has the same characteristic. Every morbid belief has to him the force of demonstration; anything contrary to it being inconceivable to his mind. Sane people doubt, not drunkards or lunatics.

Thus, unmanageable mental incompetency is ever present in the drunken state; and it varies in degree as the intoxication is more or less profound—it being understood, of course; that consciousness is not extinct.

3. The mental aberration of drunkenness, however, is not dependent exclusively upon faults of nervous sensibility and the direct deterioration of nervous function. True, the impairment of the senses, both with respect to completeness and accuracy, is in itself sufficient to cause serious disturbances in thought and conduct. But in drunkenness, to the defects of mere sensation and perception already noted, there should be added, instability of movement, and inco-ordination of function amongst the several great departments of the human organism. If the misinformation and the false beliefs, dependent upon imperfection of the perceptive faculties, deceive the judgment and lead the mind astray, how much more do false beliefs conduce to mental disorganization, when they are themselves misapplied, through an imperfect interaction of the motor, and rational and moral powers? To accomplish the behests of individuality, to complete the impersonation of self, there must be symmetry of function—unity of purpose—both in regard to time and in regard to events, between these three component elements of human nature: namely, movement, reason and motive; or, as commonly written, body, mind and soul.

When intoxication is present, and the power of alcohol is in authority, there is an absence of normal co-ordination in the functions of these three great elements of human character. The mind and hand, for example, do not readily respond to the calls for each other. The dormant sensibilities fail ofttimes, to notify the intellect of the necessity of its co-operation with motor or muscular activity. The torpid and lifeless touch will, perhaps, press with unconscious force upon the trigger, and, incapable of alarming the rational faculties, or of receiving alarm from them of impending danger, the weapon is unexpectedly discharged, and possibly a tragedy is enacted.

The inhibitory power exerted by alcohol over the finer sensibilities is very likely to withdraw the supervision of the moral nature over conduct. The animal propensities are left to their own courses, unrestrained by their natural monitor. A noted criminal case in St. Louis is an example of this. A young man, accustomed to borrow jewelry from his grandmother to pawn for means to buy liquor, on one occasion, when deeply intoxicated, placed his hands upon her person and abstracted her watch and drew the rings from her fingers. It was after night. The woman had retired, and in the bewilderment of sudden awakening, she probably struggled and resisted. She was aged and feeble, and suffered greatly from asthma. She died under this treatment, and the drunkard was horrified the next day when arrested and informed of the facts. The old lady and her grandson were the greatest of friends, she being his kind refuge and protector when he was in trouble.

While the moral sense of this man was probably latent, there is no likelihood that the act was prompted or attended by any criminal motive. The component elements of the human nature in this person were distracted in their co-operative functions. There was absence of symmetrical activity among the mental, moral and motor capacities. The motor system was no doubt morbidly impressed by the anæsthetic properties of the poison, and the muscular force employed was in consequence greater than was supposed or intended. The mind was deprived of the power to rightly measure the strength of the hand's grasp. The sense of feeling was destroyed. In this case there were two defects in the co-ordination of function among the essential constitutional powers. One arose from latency in the sense of muscular force, the other from abatement or absence of the moral sensibilities.

When circumstances do not point to criminal intent, such events as this are apt to be classed as "accidents." In truth, they are not accidents, but the inevitable consequences of mental impairment, dependent upon the toxic properties of alcohol. The mental powers are depressed as well as deranged. No mind can foresee the consequence of the so-called accidents of alcoholic inco-ordination, and no mental power can prevent them.

There is a peculiar state of mind called *trance*, that is not unusual in drunkenness. It may come on with moderate drinking; it is more common, however, after deep potations. It is a condition not necessarily consequent upon alcoholic indulgence, although alcohol is a very effective cause of its appearance in certain constitutions. In alcoholic trance, consciousness at best is but partially influenced by the material surroundings. It is, in a great degree, associated with subjective, or automatic life—the things of the life of common relation being unknown to memory when the trance state has passed away. Here is a mental situation wherein the fitness of things, as apparent to ordinary observation, is not clearly noted. It may be supposed, without violence to probability, that the faint glimmerings of common sensibility and life, mingling with the suggestions of a co-temporaneous automatic existence, would arouse strange incentives and evolve unconscious motives, greatly at variance with those of ordinary rational experience.

It is certain that crimes, inexplicable in atrocity and motive, are not infrequently perpetrated by drunkards during the trance state. The actual in-

citements to crime and murder that are associated with this singular condition of the mind cannot, probably, ever be known. For, upon "awakening"—that is, when consciousness again becomes normal, little, and sometimes no, remembrance of its trance experience is retained. It is highly probable, however, that both—imperfection in the perceptive faculties, and inco-ordination in the mutual interaction of the predominant departments of the human organism—unite in producing dangerous and unnatural causes of thought. Here, there is no normal consciousness, no rational intent, no responsibility.

Alcoholic drunkenness is equally devoid of conscience and shame. It goes everywhere, without invitation or welcome. Whatever it touches, it soils. It degrades and disfigures everything within the range of its influence—whether the familiar affairs of every-day life, or the noblest efforts of human genius.

Drunkenness really seems to be insanity—reinforced and doubled—lunacy itself run mad.

PRACTICAL OBSERVATIONS ON THE PHYSIOLOGICAL ACTION AND THERAPEUTIC USES OF SOLANUM NIGRUM AND ATROPA-BELLADONNA.

By T. G. STEPHENS, M.D.,
SIDNEY, IOWA.

IT is quite an undertaking for an obscure doctor, in an obscure village, to attempt to write an article for a medical journal whose standard is as high as that of the TIMES AND REGISTER.

I was called to attend a family consisting of husband, wife, and three children, who were supposed to have been poisoned by something which they had eaten for breakfast. I found some of them suffering from pain in the stomach, attended with vomiting, whilst others were harassed with nausea and retching, dryness of the mouth and throat, and dilated pupils; the entire number perspiring and showing signs of stupor. The father stated that the family had eaten freely of buck or beechwheat cakes, and that he had raised the cereal from which they had been made. On inquiry as to whether he knew what black or common nightshade was, he answered in the negative; but, after giving him the general character or scientific description of the plant, he stated that it grew in his yard, garden and fields, and that he had seen it growing amongst the buckwheat. By a little further investigation we found some of the dead plants standing along the side of the field in which the grain had grown. The toxic effects of the supposed plant soon passed off with but little treatment, leaving the family in apparently as good condition as before.

The black nightshade is of foreign nativity, but has become quite common throughout the United States. The entire plant is said to possess narcotic properties, and was at an early date made officinal—afterwards omitted. It had almost fallen into entire neglect until the attention of the medical profession was again called to it by M. Gattacker, Surgeon of Westminster Hospital; in 1757 he used it for foul and painful chronic ulcers, scorbutic eruptions, and ulcers of a cancerous nature. Dioscorides, the celebrated Greek physician and botanist of Anagarba, who is supposed to have lived in the time of Nero, says the ancients used it as an external application, either in the form of poultice or its expressed juice in a great variety of diseases. At present there is no preparation made from solanum nigrum (common nightshade)—at least, we find no mention of any preparation in any of the pharmaceutical or medical text books.

Botanical description.—Is annual, deciduous and herbaceous; height from twelve to eighteen inches; homely, and of a dark green color; the stem branched and often spreading, roughened angles; the leaves ovate toothed; flowers small and white, in lateral clusters, drooping; berries round, and black when ripe. The nightshade family belongs to the natural order Solanaceæ, including an extensive genus, especially as we approach the tropical regions; the members of this order are composed of both herbs and shrubs, but mostly of the former, some yielding nutritious and wholesome food, including the potato — S. tuberosum,—whilst others are powerfully narcotic, and furnish valuable medicinal agents; the narcotic properties depending upon alkaloids, and the narcotism induced by some of them have the peculiarity of producing phantoms and *dilation* of the pupils; unlike opium, whose effects are at first exhilarating, and rarely giving rise to delusions, after a certain length of time the patient passes into a calm sleep, filled with pleasing imaginations, and, if the dose is excessive, *contracted* pupils.

In connection with the common nightshade we will mention one of its congeners—atropa belladonna, deadly nightshade—the most important one of the entire family. The word is a compound one, of the Greek and Italian languages; atropa signifying the name of one of the Fates, who was supposed to cut the thread of human life, whilst belladonna is taken from the Italian language and means a handsome lady, because the ladies of Italy used it as a cosmetic to take away the too florid hue of their faces.

The deadly nightshade has a very remarkable history. The earliest definite notice we have of it occurs in the work of Fragus (A. D. 1532), who calls it *solanum hortense nigrum.* Buchanan relates that the Scots mixed the juice of this plant with the bread and drink which, by their truce, they were to supply the Danes, which so intoxicated them that they killed the greater portion of Swend's army while asleep. Shakspeare is supposed to refer to it under the name "insane root." Belladonna is a native of Asia and Italy, where it grows without attention, and has been introduced into other parts of the Old World, as well as in the New one, where it does well under cultivation, retaining all of its activity, but is not raised in such quantities as to become a commodity; manufacturing pharmacists depending upon that which is imported from Europe. It is a powerful narcotic poison; herbivorous animals and birds are said to be but little affected by doses which are fatal to carnivorous. For the relief of pain belladonna more closely approximates opium than any other narcotic with which we are acquainted. Atropine, as the French call it, the active principle of the plant, is obtained from the dried roots in the form of an alkaloid; the young plants are said to yield a greater per cent. of solid extract, and that the extract itself is much richer and more uniform in yield of atropine. When used subcutaneously its action is very prompt. In cases where a narcotic is indicated, and opium not well borne in consequence of an existing idiosyncrasy, belladonna will generally fill its place. Where there is irritation of the vascular granulations of the hypertrophied mucous membrane of the bowels, belladonna is often contraindicated, being laxative, and producing colicky pains; it is liable to give rise to tormina and painful intestinal tenesmus.

Therapy.—The greatest uses of belladonna are in neuralgia and spasmodic affections, especially those

having their origin in the pelvis. For irritation of the bladder or incontinence of urine caused by irritation of the detrusor muscle, the solid extract of belladonna excels all other narcotics, taken noon and night; and, as the root grows in different localities, there is not an exact uniformity of strength in this preparation, so it is better to commence with one-fourth of a grain and increase to one-half, or more, until its characteristic effects are experienced.

For enuresis nocturna:

℞.—Extract of belladonna sol. ..... gr. ij.
Aquæ puræ ..... f℥ij.
Fiat. sol. et add:
Extract. pichi ..... f℥j.
Syr. gaultheriæ ..... ℥vij.
M.—Sig. A teaspoonful noon and night for a child five or six years old, gradually increasing the dose if necessary.

In the more intractable cases of neuralgia, belladonna alone is not sufficient, but, by the combination of its alkaloid, sulphate of atropine with the sulphate of morphine, we have a more reliable remedy, one which may be hypodermically used with better results and fewer relapses than when given separately, and the medicine borne for a much longer period without the unpleasant effects which usually follow the prolonged use of either one alone. Their actions are synergetic, one remedy antagonizing the bad effects of the other. Localization of hypodermic injections, as a rule, is not necessary to benefit a given part; neither is it necessary to inject the painful site, although there are exceptional cases in sciatica and dorso-intercostal neuralgia; whether the latter be associated with herpes zoster or not, I have received the best results from localization. The good effects of the medicine in this way may be on account of some anatomical change in the neurilemma, or in the parts surroundiug the nerve. In the treatment of intercostal neuralgia, which is the most frequent form, the medicine should be injected into one or more of the points douloureux of Valleix, which are generally quite sensitive; also, in the treatment of sciatica, it is better to inject into the areolar tissue surrounding the nerve, along the ham and peroneal surface of the leg.

In the treatment of neuralgia of the fifth pair of nerves, whether depending upon structural changes or not, hypodermic injections at a remote part is quite satisfactory. I have in charge a gentleman, in his seventy-seventh year, whose upper lip, a part of his nose, and the greater portion of the soft parts of one side of his face have sloughed in consequence of an epithelial cancer, and, as a temporary expedient, a single injection into the arm gives comparative relief from pain, arresting the excessive flow of saliva, and other discharges, in a marked degree; superseding all other medicaments in the case, having used it during the last eight months two hundred and eighty times, administering it, with the exception of three or four times, in the posterior aspects of the forearms. The only observable difference in its effects since this course was adopted is that its action is not quite as prompt, the same sized dose having been used the entire time; the patient occasionally takes, in my absence, a dose of morphine. The following formula is a very suitable one in the foregoing cases, and can be obtained in the form of soluble hypodermic tablets, one constituting a dose, at the same time giving due attention to any anomalies that may present themselves:

℞.—Atropinæ sulph. ..... gr. $\frac{1}{100}$.
Morphinæ sulph. ..... gr. $\frac{1}{4}$.
M.—Fiat tablet No. 1.

Dissolve this in thirty drops of water, and use hypodermically as the occasion requires, persevering in the treatment, if necessary, until symptoms of incipient poisoning is produced. In cases where we expect to administer one or both of the remedies for a considerable length of time, it is better to combine them in the beginning, which lessens the tendency to headache and morphinism, differentiating if necessary.

SUPPURATING ULCER OF THE CORNEA.

By EDWARD JACKSON, A.M., M.D.,
Professor of Diseases of the Eye in the Philadelphia Polyclinic.

FOR the present purpose it is convenient to regard corneal ulcers as divided into two classes, the simple and the suppurating.

In the former the loss of substance constituting the ulcer is surrounded by clear, apparently normal corneal tissue, or by tissue moderately infiltrated with plastic material; in the latter the surrounding tissue is, to some extent, softened and infiltrated with pus.

The simple ulcers include those ordinarily seen in neuro-paralytic, malarial, or phlyctenular keratitis, and many of those due to injury of the cornea, or accompanying catarrhal forms of conjunctivitis. The suppurating ulcers arise from infection, sometimes from primary infection either on the surface constituting an ulcer from the start, sometimes from deeper infection, starting as corneal abscess. Certain injuries are particularly prone to give rise to suppurating ulcers.

The simple ulcer, too, is quite liable to become infected, and pass over into the suppurating class. While, on the other hand, it is the endeavor of the surgeon by appropriate treatment to deprive the suppurating ulcer of its peculiar character, and carry it over into the class of the simple.

The majority of ulcers that perforate the cornea belong to the class we are considering, and a very large proportion of suppurating ulcers, unless checked by appropriate treatment, go on to perforation of the cornea.

The management of one of these cases, so long as it maintains its special suppurative character, is always a cause of anxiety and annoyance to the surgeon. For not only is there danger of perforation leaving adherent leucoma and permanent opacity of the cornea, but in a considerable proportion of cases the pus makes its way into deeper parts of the cornea, causing onyx or hypopyon, and the suppurative process extending still further is liable to cause the complete functional destruction of the eye.

In this form of ulcer the general disturbance of the whole eye-ball is usually considerable, the pain severe, the hyperæmia marked. But the diagnosis is to be made principally by inspection of the ulcer itself. Plastic exudation into the cornea, and chronic opacities of the cornea are gray. Purulent opacity is yellowish. Sometimes fine vessels give to other opacities a somewhat yellow color, but in such cases careful examination under a strong lens will reveal the individual vessels. In addition to the yellowish color it presents, the tissue involved in the suppurative process is greatly softened.

Passing directly from the practical matter of diagnosis to the practical matter of treatment, the gravity of this affection has, with reason, been held to justify recourse to vigorous measures of treatment. In the more serious cases, especially the so-called *ulcus serpens*, incision extending through all the layers of the cornea, and from the sound tissue on one side to

the sound tissue on the other, was a few years ago the accepted standard treatment. Milder cases were to be met by a vigorous scraping away of the surface of the ulcer. More recently the actual cautery, or the galvano-cautery, for the destruction by heat of the infected tissue, has been quite generally resorted to with good results. And it is the treatment to which I should resort if the following method had not given even better results, as to the amount of permanent opacity left by the disease.

The surface of the ulcer is to be carefully scraped with a blunt instrument, such as the cornea spud, until all tissue soft enough to be readily scraped away has been so removed, and the purulent exudate has been squeezed out of the tissue around it. This manipulation reveals the depth of the ulcer, considerably narrows the area of noticeable infiltration, and enables the surgeon to make his subsequent application directly to the seat of conflict between the living tissue and the invading pyogenic bacteria. The scraping should be repeated whenever any renewed extension of the area of purulent infiltration is noticeable; whether that be in six, twelve, or twenty-four hours; and so often as there is this indication for it.

Immediately after each scraping the surface of the ulcer is to be thoroughly washed with a solution of bichloride of mercury of from 1-1000 to 1-3000. This is done by filling the ordinary rubber-bulb pipette or dropper with the solution, holding its nozzle in close proximity to the ulcer, and then ejecting the fluid with considerable force against its surface.

In addition, the patient is to have the eye thoroughly cleansed every one, two, or three hours with a solution of mercuric chloride of 1-3000 or 1-5000. And two or three times a day the closed lids are to be bathed, for five minutes or longer, with water as hot as the patient can bear. The length of hot warm applications is to be proportioned inversely to the inflammatory hyperæmia. When the general inflammatory reaction seems greatly below what should attend the suppurative process going on in the cornea, each application of hot water may be continued fifteen or twenty minutes, and the application may be more frequently repeated.

The pain of this scraping and washing may be brought within reasonable limits by the use of cocaine. When corneal abscess is to be dealt with, it is to be opened freely, and at once, and then treated as a suppurating ulcer. The eyes should be kept at rest for some days, and perhaps shaded during this time, and anything like poulticing or bandaging carefully avoided. As the ulcer loses its special suppurative character, this special line of treatment may be abandoned, except that the use of the milder solution of mercuric chloride should not be given up until the healing is pretty well completed.

The line of treatment thus indicated is essentially the one I have followed for a little over two and a half years. The results obtained with it have been very satisfactory. Of the eighteen cases of suppupurating ulcer that have, during this period, been under my care, but three have gone on to perforation of the cornea, and these three are exceptions that may truly be said to prove the rule, since they were not at the time the perforation occurred under this treatment.

Case I.—S. H. M., a colored boy, nine years old, was brought to the clinic with an ulcer near the outer margin of the right cornea; this was regarded as a phlyctenular ulcer, and so treated. He neglected to return until the fourth day, when the ulcer had perforated, allowing a small round prolapse of the iris. The margins of the ulcer presented purulent infiltration. They were treated by the above method, and quickly healed. Eserine failed to produce the prolapse, which was snipped off three weeks later. The eye was left with a small peripheral adherent leucoma, a free circular pupil and good vision.

Case II.—A girl, aged three and a half years, was brought with a central suppurating ulcer of the cornea, which was treated according to the plan recommended. Next day there was great improvement. Two weeks later she was brought back with the ulcer greatly extended, and its floor and sides a mass of sloughing tissue. The history given was that after the second visit it seemed so nearly well that the mother thought it not worth while to return, and in two or three days discontinued the use of the bichloride solution at home. It had been getting worse again for nearly a week. On attempting to fix the eye for the scraping, the floor of the ulcer gave way, and the aqueous humor escaped with a spurt. The treatment was now regularly pursued, and the ulcer healed rapidly, leaving no synechia, but a central leucoma preventing any good vision.

Case III.—A child, three years old. Brought to the clinic in my absence, and treated as a case of phlyctenular ulcer without scraping or bichloride. At the second visit the floor of the ulcer was found sloughy, and it readily perforated during the scraping. Recovery was prompt, with a small leucoma and one thread-like synechia.

It will be noted that in two of these cases perforation occurred at the time of the scraping, but it cannot be blamed on the special instrument or manipulation employed. It would be quite as likely to follow any other local manipulation and treatment. Possibly in some such cases it may be avoided by a previous tapping of the anterior chamber through some other part of the cornia, a procedure I resorted to with success in one of the cases treated after this plan.

Hueppe recommends as a diet in cholera:

R.—Vitelli ovi	. . . . .	No. ij.
Sp. vini Gall	. . . . .	℥j.
Syr. rhataniæ	. . . . .	℥ss.
Aq. cinnamomi	. . . . .	℥ss.

M.—S. ℥ss every half or quarter hour.

Formula for Diuretin:—

R.—Diuretin	. . . . .	gr. lxxv to ʒij.
Syrupi	. . . . .	℥ij.
Aquæ menth	. . . . .	℥iij.
Aquæ dest.	. . . . . q. s. ad.	℥vj.

M.—S. ℥ss every half to one hour.

M. Babchinski, a Russian physician, had his son attacked with severe diphtheria. An attack of facial erysipelas supervened, and a sudden change was produced in the condition of the patient; the fever fell, the exudation disappeared, and the child recovered in a short time. The physician observed with many other patients a like improvement follow erysipelas; and in one case the erysipelas had attacked a limb. These facts suggested the idea of inoculation with erysipelatous blood. This was done; and the child was cured of its diphtheria. Similar success was invariably obtained by inoculations with cultures on agar-agar. No other remedy was employed.

—*Revue de Thér.*

The Times and Register

A Weekly Journal of Medicine and Surgery.

New York and Philadelphia, Oct. 4, 1890.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

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THE ECLECTICS.

A WRITER in the *American Medical Journal* undertakes to reply to our remarks in a recent issue of this journal on the standing of eclecticism. He does not accept our definition of their principles, but says that the statement of their limitation to the use of certain drugs is incorrect; and that the eclectic is "perfectly free to select his remedies from any source whatsoever — whether from the vegetable, mineral, animal, or any other kingdom." "We claim the glorious privilege of using any and all remedies that will aid us in restoring the patient to health."

Then what is there left to eclecticism to justify its existence as a separate school? Either the eclectic is limited to the use of certain remedies, or he is not. If he is not limited, but free to use whatever he believes to be best, he occupies the ground of the regular school. In that case, the reasons for the separate existence of the eclectic school must be sought elsewhere than in a difference in therapeutics. We have carefully perused the article in the *American Medical Journal*, and failed to find any exposition of eclectic principles which merits consideration. We quote:

> From their extensive investigation and experience they have learned that irreparable injury can be done to the human system by a reckless administration of minerals, and, consequently, give them more conservatively and carefully than allopaths. They have a great advantage over the allopaths, from the fact that the latter are not familiar with many drugs outside of the mineral kingdom, and, consequently, have not so great therapeutic resources as eclectics.

This is disappointing. From his outspoken repudiation of therapeutic limitation, we hoped the writer would give us something tangible in the way of an exposition of principles. All there is in the above is simply the assertion that eclectics, as a class, give minerals less "recklessly" than do regulars, and that the former are more familiar with many non-mineral drugs. This is sheer nonsense. Even if it were true, it would not constitute as good a reason for the existence of a separate school as the celebrated dispute over a diphthong was for dividing the Church. We may believe that our professional brother gives calomel more freely than we would; but that is his affair, not ours; and if that constituted a legitimate reason for separating into different sects, then every physician would form a school of his own, isolated from his fellows. Individual preference in the matter of treatment is not, then, a sufficient excuse for the existence of a separate school. No eclectic can possibly be farther apart from the regular in their honest belief and practice than is Tait from Apostoli, Koch from Virchow, Pasteur from Peter. Yet the regular school is broad enough to cover all these, and many more who are diametrically opposite in their beliefs, and have no hesitancy in expressing their views as to each other. Absolute freedom as to belief and practice rules in the regular medical school; and what more can any one ask? There is no law by which one *must* do any one thing but what he believes to be his duty by his patient. That platform would seem to be broad enough for any one to stand upon.

The true reasons for the existence of separate sects in medicine are political rather than scientific. Many eclectics have not received any medical education worthy of the name. Some have. Others have, by their native intelligence and industry, made up in actual practice for the defects in their collegiate course — as has every physician who ever left the halls of the best college in existence. It is to this class we have endeavored to draw public attention; to the men who are fully qualified to practice medicine, whose practice and belief are the same as our own, but who are compelled, by an absurd technicality in our own regulations, to remain with a class of practitioners with whom they have no sympathy, or else live in professional isolation.

We speak from the standpoint of those to whom medical science is dear, medical politics distasteful. Everything that favors the rise and perpetuation of sects in medicine injures the true cause in just so far as it withdraws the thoughts of men from the study of strictly professional work. Every page which is filled with denunciations of other schools is that much lost to science. Judging from some of the sectarian journals that reach our table, so much of the time of our friends is spent in portraying "allopathic" wickedness that there can be but little left for study. If the eclectic has discovered truths that escaped our ken, he should come right in among us and disseminate them; and perhaps we, in our turn, may be able to give him a little increase of knowledge.

ACCLIMATIZATION.

AS the broad fields of the great West are becoming rapidly occupied, the time draws nearer when new outlets for our surplus population must be found. England turns her attention more and more towards the tropics. India and Africa prove more attractive than the colder regions of the Canadian Dominion. If we follow this example, Mexico and Cuba will probably afford us the needed outlet; and in that case the question of acclimatization will become important. One of the most interesting papers

presented at the late Congress was upon this subject, by Prof. Stokvis. The tropical races differ in some respects from the natives of the high latitudes. The former breathe more rapidly, have smaller lung expansion, the thorax is less in circumference, abominal respiration less marked, the pulse is faster and of less tension, the abdominal organs are richer in blood; they sweat more and urinate less, they are over half a degree warmer, and weigh less in comparison to their height. They have less acute special senses, less power of mind and body, but greater sexual vigor.

These peculiarities Stokvis believes to be less due to race than to climate; as Europeans settling in the tropics tend to assume the type of the natives. Tissue metabolism lessens, urea lessens, and the inorganic salts in the urine increase. The blood is unaltered. As the European adapts himself easily to the heat-changes, so he also resists atmospheric changes better and suffers less from pulmonary diseases than the native. Sunstroke is more likely to affect the European, but occurs too seldom to be an important factor. Gastro-intestinal affections, skin diseases, and hepatic disorders are more common among Europeans; but the abuse of alcohol must be taken into account. The European must avoid excesses of all kind, and observe hygienic rules; and when this is done the mortality is strikingly lessened. During the first half of this century the death-rate of the English troops in India was 84.6 per 1,000; it has since fallen, with the observance of improving hygiene, until from 1879 to 1887 the mortality was but 16.27 per 1,000.

As to the specially tropical diseases, malaria affects the natives in India equally with the whites. Typhoid is more common with the latter. Yellow fever attacks new-comers chiefly, who have not had time to become acclimated. Dysentery and cholera retreat before the advance of hygiene; the mortality from the latter having fallen from 18.6 per 1,000, in 1868, to 3 per 1,000. Beri-beri attacks all races alike. Stokvis' conclusion is that the European has a power of resistance equal or superior to the natives; but that this is gradually diminished by residence in the tropics; so that the European Creole is, bodily and mentally, inferior to the European.

For many reasons, it is most desirable that the outlet for our people should be found in the North.

Annotations.

STATE OF URINE IN GENERAL PARALYSIS.

M. LAILLIER remarks as follows upon the above subject: He has observed certain modifications of the nature of delirium presented by general paralytics. He states that in the depressing delirium which precedes general paralysis, the total amount of substances eliminated by the urine descends below a physiological proportion. In anxious delirium, on the contrary, he notes an exaggeration of the salts in the urine, notwithstanding the insufficient nutrition of patients.

In the outset of general paralysis carbonate of ammonia is not to be found in urine; but during the later stages it is in abundance.

Laillier has never met diabetes in general paralysis, and among diabetic insane whom he has observed not one of them has ever become paralytic.

—*Le Bulletin Médical.*

A SINGULAR cigarette accident occurred in Paris. An elderly gentleman received a slap on the back; the cigarette he had in his mouth disappeared; and two months later a circumscribed pneumonia developed, with pulmonary œdema and feeble heart. Two months of this condition elapsed, when the missing cigarette was coughed out. The pulmonary symptoms persisted for some months, and had not entirely disappeared at the expiration of a year. The remarkable toleration of the foreign body by the bronchus is to be explained partly by the patient's age and partly by the local sedation caused by the tobacco.

BEFORE the Academy of Medicine, at the sitting of August 5, Prof. Sée read an article upon The Use of Cannabis Indica in the Treatment of Neuroses and Gastric Dyspepsia, from which we extract the following résumé:

Cannabis is a vegetable stomach sedative, without any of the inconvenience of such narcotics as opium and chloral; of such absorbents as bismuth; of such common sedatives as bromides; of antipyrine or other drugs of this class, which invariably produce enfeebling effects upon the digestive tubes.

The action of cannabis necessarily involves the aid of other curative methods as indicated. It demands the adoption of such sanitary food regulations as recent physiological researches have demonstrated to be of use in stomach digestion.

Stomach digestion is increased by cannabis if the functions be impaired by a paralytic condition of the nerves of these organs, or by a surplus of hydrochloric acid. In the latter event it produces no improvement. All it can do is to render digestion less painful. It cannot make it more effective.

Intestinal indigestion, on the contrary, is at once relieved by this drug.

Upon such concomitant phenomena as vertigo, migraine, insomnia, palpitation, and even dyspnœa it acts well, often annihilating these painful symptoms. From all of which we deduce the fact that it would be well for this comparatively little used drug to be brought into open notice.

IN the August number of the *Berliner Klinische Wochenschrift* is an article by Dujardin-Beaumetz upon Dilatation of the Stomach as a Cause of Neurasthenia, which was read before the late medical congress at Berlin.

After speaking at length of the relations which existed between diseases of the stomach and of the nervous system, he speaks as follows regarding the treatment of this particular form:

"What is the treatment that gives the best result in these cases of neurasthenia of a gastric origin? It is that which has for its basis gastro-intestinal antisepsis—antisepsis which is realized by the employment of the following means:

"(*a*) Employment of such antiseptics as salicylate of bismuth, naphthol-β, and salol.

"(*b*) Evacuation of toxics by proper laxatives where there is constipation, and among those patients which have diarrhœa the employment of intestinal lavage with solutions of one to a thousand of naphthol.

"(c) Employment of alimentary hygiene which will reduce to their minimum food poisons, a condition which is obtained by the use of a vegetable régime composed of eggs, starches, fresh vegetables and fruit. Fish, game, mollusks, shell-fish and old cheese are forbidden. It is better to use food rendered imputrescible by prolonged cooking, as few meats as possible, laxative drinks.

"To this medical antisepsis should be united massage, used as aid to gymnastics and hydrotherapy.

"These are the conclusions that I wish to make public regarding a disease that has grown so common to-day: dilatation of the stomach followed by neurasthenia.

Cincinnati Letter.

DR. S. C. AYRES has returned from the Rocky Mountains, where he went to escape the hay fever.

Dr. L. J. Krouse has returned from New York, where he spent six weeks looking up the latest in his specialty.

Dr. A. W. Johnstone, of Danville, Ky., has removed to Cincinnati, and is in partnership with Dr. T. A. Reamy in his private hospital for women.

The Cincinnati Obstetrical Society held its September meeting at the residence of Dr. E. S. McKee. The subject for discussion was Obesity in Its Relation to Menstruation and Conception, which was opened by a paper by Dr. McKee. The next meeting will be held at the residence of Dr. T. A. Reamy, the third Thursday evening in October, being deferred one week on account of a number of members being in attendance at the Mississippi Valley Medical Association at Louisville, Ky., October 8, 9, and 10, 1890.

Drs. Max Thorner, Max Koehler, W. W. Seely, and W. M. Rhoads have returned from the International Congress at Berlin.

Dr. W. S. Christopher, Demonstrator of Chemistry, Medical College of Ohio, has been called to the Chair of Theory and Practice, University of Michigan, and has departed for his new field of labor.

The Order of Deaconesses has a strong advocate in Cincinnati in the person of Dr. E. G. Zinke. This is a German organization for the training of nurses for the sick, be they rich or poor. The rich, the doctor said, could not get competent nursing, because the demand largely exceeded the supply; the poor could not get it for love or money, for both were scarce with them. He considered that the physicians of this country, and a suffering people in general, had a great lack of competent nurses. In a recent address for the benefit of this order he gave a careful history of its origin, growth, and development. Lodges organized for the benefit of the sick do a good work, but nurses supplied in rotation this way are not always beneficial. He gave a graphic description of nursing by friends and relatives, where one advised this, the other that. All display a sincere interest and kind spirit, but seldom, very seldom, do they know properly the function of a nurse, and frequently do more harm than good. The doctor was speaking to a German audience, and said: "We are justly proud of our German origin and descent, but we also rejoice that we have become Americans. We esteem the land of our fathers in the sense in which well-trained children esteem their parents, but we stand by the land of our adoption as an honorable man should by the wife of his bosom. We owe to our adopted country our entire strength, our noblest thoughts and feelings—nay, our most affectionate attention."

Dr. J. T. Whittaker was married during the summer vacation to Miss Virginia Joy, of St. Louis. The doctor and his bride took a trip to Europe, which is said to have been a very Joyous one. It is said that when the doctor went to ask for his bride, he was so filled with Joy that his tongue, usually his most obedient servant, was paralyzed with Joy. The old gentleman, seeing his embarrassment, surmised his wishes, and said, with as brave an air as possible, "Well, I don't care a Whit—tak 'er." The doctor's friends, who are legion, wish him and his wife a long and Joyful married life.

Dr. T. A. Reamy, in a recent clinical lecture, spoke very interestingly on the subject of the Early Diagnosis of Cancer of the Uterus. He said: I have had exceptional cases at twenty-two and twenty-three years of age, but if the patient is beyond thirty, or if she has had children or miscarriages, insist on an examination, and see if she may not have carcinoma in the first degree. Hemorrhage and wasting discharge are the early symptoms. Do not wait for pain and the characteristic odor, the cachexia or pallor. Do not wait especially for odor and pain. Make a digital examination. You can generally detect a roughness or breaking down of tissue, and then a visual examination by the speculus should be made. We may find ectropion and may be degeneration, and think we have cancer, when we have not. If, in operating for a lacerated cervix, we find suspicious looking tissue, cut it away, for if the tissue is not an epithelial growth it is next door to it, and should come away. The importance of the early diagnosis of cancer of the uterus, is emphasized by the fact that two thirds of my one hundred and fifty cases per annum, which come under my care, have advanced so far, one half of them even before they come under the care of the family physician, as to make a possible cure by operative proceedings very doubtful. Why is the early diagnosis of this disease so frequent? For the reason that the real cause of cancer is not known. It is, nevertheless, true that with the exception of one single authority of prominence, Sir James Paget, so far as I am acquainted with the opinions of authors, all agree in the belief that cancer is primarily a local disease. There is very probable predisposition in constitutions, tissue inheritance, yet the consensus of opinion is that cancer is a local disease.

The early diagnosis of cancer is one of the most important points in the practice of our art. Its importance cannot be overestimated. If we are to do anything we can do it with so much more hope of success if done early. Many of the cases met in hospital practice are so far advanced in the disease before they seek the advice of the surgeon, and the operation is consequently more extensive and attended by more danger than if an early diagnosis had been made and surgical treatment employed. He had been on duty at the Good Samaritan Hospital for eighteen years, and the number of cases which came to him there early enough was very small indeed. Medical treatment amounts to nothing. Surgical treatment if employed early may save, so hence this is the only treatment worthy of consideration. This woman gives a history of prolonged menstruation. Whenever a woman comes to you between the ages of thirty-five and fifty years, and tells you that she is menstruating too freely, too long, or at intermenstrual periods, do not give way to the popular opinion that the woman is suffering from the change of life. The irregularity in menstruation, which signals the approach of the

menopause, is that the woman will miss a period or two and not have too frequent or excessive menstruation. This woman menstruated too freely, then had an occasional show at intermenstrual period.

It cannot be said that much progress has been made during the past forty years as regards the recognition of fully developed cancer. Bennett's monograph on Cancerous and Cancroid Growths, published in 1849, shows a pretty thorough knowledge of the subject under consideration. He says: "The microscope alone, and independently of all other kinds of observation, can seldom determine the presence or absence of cancer." With regard to the microscopical diagnosis of cancer, we have not improved very much over Bennett. This distinguished author was also well up on other points for his day. He says, in regard to the local origin of cancer: "A cancerous growth is for some time purely local. In this indolent state a tumor may often be excised and permanently eradicated. Even when the growth has become moderately cancerous, ablation is said to have been occasionally followed by success." "There was a time," says this author, "when phthisis was thought to be necessarily fatal. Morbid anatomy has expelled that error, as it will doubtless do regarding cancer."

At the present time, however, surgeons generally unite careful microscopical examination of the structures in a suspected case with the clinical study and microscopical appearances, thus recognizing the malignant character of tumors much earlier than formerly. Here lies one of the most important advances. It points the way to extirpation of the growth in its earlier stages, while it is yet local; thus largely increasing the chances of cure. Virchow's experience with the Emperor Frederick shows how difficult it is sometimes for the most experienced pathologist to give a positive opinion regarding the malignancy of a growth, especially when so located as to permit of the removal of a very small portion for microscopical examination. However, our knowledge of cancer, especially cancer of the uterus and the breast, has been much extended during the past ten years. Surgeons have also learned to distinguish more accurately operable and inoperable cases, and thus save the patient from severe, useless, and dangerous operations. These conservative results, derived from our knowledge, are next in importance to the cure of disease by early operation. It is no small matter to save a surgeon from a surgical operation which could do no good. The benign affections of the cervix uteri which may be confounded with the malignant are chronic inflammation, endometrial inflammation with its results, erosions, granular degenerations, ectropium.

Pamphlets.

The Pharmacology of the Newer Materia Medica. Embracing the Botany, Chemistry, Pharmacy, and Therapeutics of New Remedies. Being the results of the collective investigation of new remedies, under the "Working Bulletin" system, properly arranged, classified, indexed, and placed at the disposal of the medical profession. Issued in monthly parts. Subscription price, $2.00, in advance. Single copies, 25 cents each. Detroit, Mich.: George S. Davis.

This, and the five succeeding numbers, contain an epitome of the clinical reports received upon the later additions to our materia medica. They are precisely what the physician wants who desires to employ these agents, and wishes to have the guidance of those who have already tested them. The first part begins with Adhatoda Vasica, and the list is taken up alphabetically. Parts V and VI treat of coca and cocaine.

The Vagus Treatment of Cholera, as Exemplified in Returns from the Cholera Hospital of Malta During the Epidemic of 1887. By Alexander Harkin, M.D., F.R.C.S.

Dr. Harkin's method of treating the choleraic group has been already presented to our readers. Since the publication of his article we have seen, in several journals, commendation of his treatment, and objections to his pathology similar to those we suggested at the time. Several physicians have personally reported to the writer unexpected and complete success in cases of cholera infantum with severe vomiting, by the application of blistering liquid over the pneumogastric in the neck. The pamphlet before us gives further records of experience in the use of this remedy in true cholera.

The Study of Bacteriology in Medicine. By Frank S. Billings, M.D., Chicago, Ill.

Description of a Series of Tests for the Detection and Determination of Subnormal Color-perception (Color-blindness). Designed for use in Railway Service. By Charles A. Oliver, M.D., Philadelphia.

Stricture of the Rectum. A Study of Ninety-six Cases. By Chas. B. Kelsey, M.D., New York.

Massage. A Primer for Nurses. By Sarah E. Post, M.D. New York: The Nightingale Pub. Co., 13 W. Forty-second street. 1890.

Just what one wants to give a nurse enough information on massage to enable her to obey directions intelligently.

Some Conditions of Adolescence in which Fellows' Hypophosphites is Beneficial. Part IX. Jas. I. Fellows, 56, Holborne Viaduct, E. C., 1889.

Proceedings of the First Annual Meeting of the Tri-State Medical Association of Alabama, Georgia, and Tennessee. Held in Chattanooga, Tenn., October 15 and 16, 1889.

Recent Therapeutical Notes on the Use of "Papoid" (Carica Papaya) in the Treatment of Dyspepsia and Diphtheria. New York: Johnson & Johnson, 92 William street.

Transaction of the American Dermatological Association at its Thirteenth Annual Meeting, held at the Boston Medical Library, Boston, Mass., September, 1889. Official report of the proceedings by the Secretary, George H. Tilden, M.D. New York: 1889.

Ueber das Aristol. Von Dr. P. J. Eichhoff, Oberarzt der dermatologischen und syphilidologischen Abtheilung in den städtischen Krankenanstalten zu Elberfeld. Sonderabdruck aus der *Deutschen Medicinischen Wochenschrift*, 1890, No. 27. Redacteur: Sanitätsrath Dr. S. Guttmann. Leipzig: Verlag von Georg Thieme. 1890.

Clinical Observations on the Action of Phenacetine-Bayer. By Dr. Dujardin-Beaumetz (Paris), and others.

The Relation of Eye-strain to General Medicine. By George M. Gould, M.D., Ophthalmic Surgeon to the Philadelphia Hospital. From *The Medical News*, August 23, 1890.

Address in Hygiene. By Thomas J. Mays, M.D., of Philadelphia. Reprinted from the Transactions of the Medical Society of the State of Pennsylvania, June, 1890.

An Explanation of the Phenomena of Immunity and Contagion, Based Upon the Action of Physical and Biological Laws. By J. W. McLaughlin, M.D., Austin, Texas. Reprint from Transactions T. S. M. A., 1890.

International American Conference:

Report and Recommendations on Postal and Cable Communication with Central and South America.

Report and Recommendations Concerning a Plan of Arbitration for the Settlement of Disputes Between the American Republics.

Report and Recommendations Concerning Sanitary and Quarantine Regulations in Commerce with the American Republics. Washington: Government Printing Office. 1890.

Spinal Surgery. A Report of Eight Cases. By Robert Abbé, M.D. Reprinted from the *Medical Record*.

Three Cases of Tumor of the Frontal Lobe. By W. Gilman Thompson, M.D. From *The Medical News*.

Tenth Annual Report of the State Board of Health of New York. Transmitted to the Legislature February 20, 1890. Albany: James B. Lyon, State Printer. 1890.

The Medical Digest.

In a case of profound depression from a discharging empyema, Smith (*Med. World*) employed oxygen enemata with gratifying results.

Stom says that there is but slight evidence of insanity resuting from gynecological work; while the overwhelming mass of data showing insanity to have resulted from disease of the generative organs and the number cured by gynecological treatment, should forever silence captious treatment.

I have used for more than two years the sulphocarbolate of zinc, and find it an excellent remedy. I use it mostly in intestinal diseases of children, and give from one-sixth to one-half gr. doses. Adults take one to two gr. doses every two to four hours. It is astringent and antiseptic, and can be given in combination with bismuth, etc., and repeated as necessary.—Bolton, *Med. World.*

White, in *The Lancet*, reports a case of hepatic abscess. The symptoms were fever, jaundice, coated tongue, colorless feces, and turbid urine. A hard, painful, and tender tumor was found in the hypogastrium, below and to the right of the ensiform cartilage. The abscess was opened, and a large number of gall-stones evacuated from time to time during the following year, leaving the liver much reduced in size.

The essential pathology of paroxysmal hemoglobinuria appears to consist in the ready breaking down of corpuscles of lessened resistance under the influence of cold, and the after appearance in the urine of the products of such destruction; this ready breaking down of corpuscles being apparently the final result of an imperfect power of production in the blood-forming organs, caused in turn by the baneful influence of syphilis, or possibly, malaria or gout.

—Copeman, in *Practitioner.*

Maternal and Paternal Impressions.—In the *Southern California Practitioner*, Brown relates a case in which a woman went to a circus, fainted at sight of the clown, and three days later gave birth to a boy, on whose face appeared the similitude of the clown's painted countenance. In a few weeks the colors faded away.

In the same journal, Bullard describes six cases of paternal impressions! He accounts for these by supposing that the parent who causes the impression hypnotizes the child in utero. Very good.

Milk Poisoned by Plants.—I have had two cases of infantile gastric and intestinal trouble in the last three years, which I think were undoubtedly produced by the children drinking milk from cows that had been feeding on "tumble weed."

The symptoms indicate a mixture of cholera infantum and dysentery. The first case, in a strong child about one year old, recovered after a severe illness, but did not grow any for a year or more. The second case, a weakly child about five months old, died.

In the first case the disease was arrested by bismuth subnitrate, blackberry brandy and listerine by stomach, and large injections of cold water fresh from the well. The case was ten miles in the country, and I could not get ice.

Rhea, in *Med. World.*

Dr. Cséri, of Budapest, publishes in the *Wiener Medicinische Wochenschrift* an account of a mechanical plan of treatment of chronic dyspepsia, which he has lately been carrying out with favorable results. The plan consists mainly in suitable dieting and in a peculiar kind of massage. The author practices the latter when the stomach is full, about two or three hours after dinner. Changing frequently his mode of proceeding, he strokes and kneads the stomach from the fundus towards the pylorus, first gently and superficially, then more energetically, for ten or fifteen minutes, the patient lying on his back with his legs drawn up and breathing with his mouth open. During the last few minutes the massage is extended to the bowels.—*Lancet.*

Elixir of Burdock Seed as a Menstrual Regulator.—Dr. A. D. Ayer, of Madison, Conn., in too frequent menstruation, recommends a saturated tincture of burdock seeds, mixed with an equal quantity of simple elixir, teaspoonful doses three times a day. He gives it also in menorrhagia and amenorrhœa. The frequency of the dose, of course, is to be adapted to the severity of the case. The doctor recommends that, in cases of married women, an examination should be had in order to exclude lacerations and other local lesions. He sees especial indications for the remedy in the following train of symptoms: "A dirty-looking, leaden-colored skin, full tissues, puffiness under the eyes, with swelling of the feet; urine, as a rule, scanty (excluding the uric acid diathesis); irregularity of bowels—constipation alternating with looseness; inclination to skin eruptions; languid, tired feeling; frontal headache, with beating, thumping feeling at the top of the head, as if something within tapping upward; prickly sensation at the roots of the hair, coming on suddenly, as from a thought, or reading a piece of news, or hearing an unusual noise."—*Med. World.*

Puerperal Eclampsia.—Cecil, in the *Amer. Pract. and News*, describes a case of puerperal convulsions, and gives the following summary of his views upon the management of this affection:

1. Control or modify the convulsions by chloroform.
2. Give chloral with a free hand to prevent their recurrence. This does not interfere with the next step.
3. As this is a disease attributable to non-elimination, obviously the scientific thing to do is to eliminate. The choice of methods is by purgation. Croton oil, jalap, and Rochelle salts are reliable, speedy, and efficient.
4. If the tendency to eclampsia continues after purgation, the question of delivery must be considered.
5. Labor not progressing satisfactorily, delivery may be hastened by rupture of the bag of waters, orificial irritation, Barnes' dilators, forceps, in preference to version, as soon as their application is possible.
6. After free purgation, in the presence of nervous phenomena, before or after delivery, morphine may be given with good effect.
7. Before purgation, morphine, to control convulsive action, must be given in very large doses, and is then no more efficient or reliable than chloral. Its use is contra-indicated because it arrests elimination through every channel; it has a more powerful quieting influence over uterine contractions than chloral; it congests an already congested brain; it retards a prompt convalescence.

SYPHILITIC FEVER IN THE PUERPERAL PERIOD.—A woman of twenty-five years was delivered of a macerated fetus. On her left labium was noticed a little whitish cicatrice, the trace of a chancre some months previously, which had been followed by roseola and vulvar and buccal plaques. When she came to the hospital, all specific manifestations had disappeared under treatment, except intense nocturnal headache, and indurated glands in the cervical region and the knee.

The sequences of the accouchement were at first normal; some odorless lochia, no stomach pain, uterus well retracted, slight mammary congestion, good appetite. Suddenly, on the eighth day, without pain or rigors, the temperature went to 38.5° C. in the morning, and 39° C. in the evening. Suspecting a puerperal infection, the uterus was washed out with Van Swieten's double solution; but the liquid returned clear, without débris. Quinine, fifteen grains. Following the injection, reflex syncope, without rigors, with free sweating.

Next day, temperature 38.5° C., repeated the injection, with the same result. The belly is soft, painless, flat; uterus small, not tender; vaginal touch reveals nothing abnormal; no discharge. That evening a roseola appeared on the breast, which invaded the abdomen and back, and lasted two days. Yet, the general health remained good, pulse regular, strong and of medium frequency, considering the temperature of 40° C.

Specific treatment resulted favorably, and she left the hospital twenty days after the confinement.

—Leblond, in *Le Bulletin Méd.*

BONE-GRAFTING.—In *The Lancet* is reported a case of bone-grafting with decalcified bone chips, at the Edinburgh Royal Infirmary. The case was that of a farmer, aged forty-four, with chronic inflammation of the bursa under the right ligamentum patellæ, and abscess in the head of the tibia. The swelling was opened, and the gelatinous contents removed; the abscess cavity cleared out, a drainage-tube introduced, the wound dressed antiseptically, and a splint applied. The tibial cavity did not show signs of closing, so that it was determined to stuff it with decalcified bone. A piece of ox's rib was scraped, decalcified with weak hydrochloric acid, pressed clean, soaked in carbolic solution—one in twenty—for forty-eight hours, and cut in small pieces. The tibia was scraped and gouged to afford free access to the cavity, which was stuffed with the decalcified bone shavings. As these did not entirely fill the cavity, the operator added the pieces of bone that had been removed and kept in borac solution. The cavity was two inches in diameter. It closed very rapidly; but the probe could still enter about an inch, and bare bone could be felt. Several pieces of necrotic bone were removed, being evidently those that had been gouged out and returned at the time of the operation. A very small sinus remained when the patient was discharged, but was soon reported to be closed. Dr. Miller remarks that the closure of the cavity was facilitated by the use of the decalcified bone, as recommended by Senn, and that this was superior to the fresh bone, which was actually a hindrance. The bone cavity quickly filled with granulations, but the external wound remained open till all the necrosed bits of fresh bone came away. There was never a drop of pus, and the temperature never rose over 100° F. The dressing employed was iodoform and wood wool mostly, and all dressing was done under the spray.

The use of the surgical engine would probably greatly facilitate such operations.

TRANSFUSION OF LAMB'S BLOOD IN TYPHOID FEVER.—W. T., who has been seriously ill with typhoid fever for three weeks, had seven continuous hemorrhages from the bowels, the last of which amounted to over a gallon—total loss of blood was near two gallons. These hemorrhages produced such exhaustion as to make it evident that death would soon follow, unless something was done to replace the vital fluid which had been lost.

To meet this emergency, as a last resort I suggested that transfusion of blood be tried, to which the family agreed. Being fully aware that there was no time to lose, I hurriedly sent for Dr. Wilson, of Gastonia, to assist me in the operation. The patient was sinking rapidly. Pulse was almost imperceptible, and respiration very labored. The capillaries of the conjunctiva had become congested, and nervous phenomena were most severe. Immediately upon the arrival of Dr. Wilson the operation was done, using the blood of a lamb, introducing about one quart of arterial blood.

Immediate improvement was noticed. Pulse became stronger, respiration freer and easier, nervous system became quiet, and the patient went off into a quiet and refreshing sleep—the best sleep he had taken since he took his bed. The advent of the lamb's blood into its new habitat has marked a rapid and continuous improvement, and the patient is now able to sit up—sixteen days since the transfusion.

The blood was introduced directly from the common carotid artery into the brachial vein at the bend of the elbow.

I report this case thinking that it would be of practical interest to the profession, and probably the means of saving precious lives.

—Jenkins, *Med. World.*

REICHERT (*Univ. Med. Mag.*) gives a review of those drugs that are believed to conserve the tissues; alcohol, tea, coffee, cocoa, maté, kola, guarana, hemp, tobacco, opium, etc. His conclusions are as follows:

"From these studies it seems clear that the virtues of this remarkable class of substances are due to three chief actions, one or more of which may be characteristic of each member: the production of mental exhilaration, the excitation of the energy-yielding processes, and the ability to furnish energy through their own decomposition. They in common possess the power of causing mental excitement, but which differs greatly in degree, and appreciably in its nature, some of them effecting chiefly the imagination, and others the reasoning faculties. While the condition of the mind is favorable for the manifestation of the peculiar phenomena evinced, and is doubtless the essential factor in the actions of opium and tobacco, it is evidently but secondary with the preparations of alcohol, and with the cocaine and caffeine-bearing substances. Thus the preparations of alcohol also tend to diminish the destruction of the tissues by supplying through their own disintegration the deficit of energy thus resulting, and may enable an enormous increase in the powers of endurance and of the ability for work, even where tissue change is at its normal standard, by supplying from their own potentially laden molecules the excess of energy demanded. On the other hand, those agents which depend upon cocaine or caffeine for their activity, while of themselves incapable of yielding energy, so powerfully excite the energy-yielding processes that the tissues are consumed at a correspondingly quickened pace, and the store of energy proportionately dissipated. Figuratively speaking,

alcohol is fuel added to the fire, and to the extent of the energy which it can yield will save the fuel or add that much energy; but cocaine or caffeine act as a forced draft, supplying no energy in themselves—simply causing the fire to rage more fiercely."

Tabetic Amaurosis.—A girl of eleven years was brought to me recently by her mother, who stated that about three years ago the child complained a great deal of pain in the back of the neck and head, rendered worse by movements. As this gradually disappeared she grew "weak in her legs," and her eye-sight became so bad that she had to leave school. She had always been very lively and mentally bright, and could not be kept in the house, as she sought the company of other children; but the neighbors found fault with the parents for allowing this, as her stumblings and gropings were distressing. The mother said that she had taken the child to several physicians, among whom were the best known "big doctors, who advertised by hand-bills and in the daily papers." One of them pronounced the difficulty to be St. Vitus' dance, and promised to cure it for some outrageous sum in advance. While the occipital and post-cervical pain and rigidity had disappeared, other ailments followed and became steadily worse during the past two years. There was now a constant frontal headache, and at times vertigo and nausea. Her appetite was insatiable, and she was extremely "fidgety." She slept well, had no bowel trouble, nor did she complain of pain aside from headache. There seemed to be but a slight impairment of sensibility upon the left side. Co-ordination was good in the upper extremities, but badly deranged in the lower; in walking the heels struck the ground first, and the gait was tottering, with a little tendency to straddle. Romberg's symptom present but not exaggerated. Tendon reflex absent on left, slightly produced by reinforcing; it exceeded the normal on the right side. The irregularity of her movements was more noticeable when she started to leave her chair; tremors and contortions were then general.

Charcot first described this form of locomotor ataxia, the most striking peculiarities being in the upturned eyes and the vague expression of the face, due to attention not being fixed upon any object. Electrical reactions and sensibility were normal, the latter being slightly greater on the left side, and upon this side the disease was more apparent throughout. The left eye could discern objects only at six inches, the right at about twelve. There was complete iridoplegia; no motions of the dilated pupil could be observed with tests for light and accommodation reactions. Dr. Bettman, at my request, made an ophthalmoscopic examination and found atrophy of both optic discs; the fact of her having any sight at all indicates that this is not complete.

The entire trouble has doubtless arisen from an old unrecognized basilar meningitis with consequent slow involvement of the optic tract and portions of the post-bulbar region. Cardiac crises have not arisen, nor is the hearing implicated, but the vertigo and gastric disturbance and a tenderness on pressure over the cervico-dorsal spine, with the history and rest of the clinical picture, afford a gloomy prognosis. Judicious use of K. I. and ergot may possibly arrest the further course of disease, but it is unlikely, and we are afforded in this case a pitiable instance of a young and promising life cut off through failure to recognize the primary trouble at a time when the most good could have been expected from treatment.

—Clevenger, in *Med. Standard.*

Parasitic Nature of Scurvy.—In my service at the Hospital de la Saude, I received from time to time some cases of scurvy. To clear up the origin of this affection, whose contagious character, sometimes admitted, sometimes contested, caused me to at least suspect the presence of a micro-organism, I have made cultures of the blood, and especially that from the gums, in tubes containing either alkalinized gelatine or the same with gelose. I have repeated these researches upon four patients in whom the affection had reached the maximum of intensity, to the point of producing ecchymoses and leg-ulcers.

Nevertheless, all the tubes remained sterile. In view of this negative result, I concluded that the culture medium chosen was not perhaps the most favorable for the evolution. On the other hand, recollecting that all pathologists mention as one of the determining causes of scurvy the abuse of salt food, I prepared a bouillon composed of gelatine and a saturated solution of marine salt. I have taken from three patients in my charge several drops of blood from the gums, previously washed carefully with bichloride solution, one to one thousand; and with this inoculated the salt bouillon.

At the end of ten days I remarked in the tubes a very slender filament, resembling a shred of mucus, which, beginning at the bottom of the tube, extended to the middle of the bouillon. The gelatine being rendered fluid, by reason of the high surrounding temperature, this filament, after slightly increasing its diameter, fell to the bottom of the tube, where it formed a flaky deposit. By the fifteenth day the gelatine was completely liquefied and turbid. I then proceeded to the microscopic examination (microscope Verick, immersion lens, No. 3 eye-piece, Abbé condenser). Observation made without staining showed numerous colonies of round micrococci, excessively small, isolated, of a diameter less than a demi-thousandth millimetre. Each micrococcus seemed to be surrounded with a soft, transparent material.

These microbes were rapidly stained by fuchsine, after the usual technique, The evolution under the form of mucus filament and the extreme minuteness of each micro-organism characterize sufficiently these cultures.

The subjects which furnished me the blood for the cultures were two children and their mother. Scurvy attacked the mother first, and the two children successively, who slept, ate and drank in common with her.

This was, as it appeared to me, a case of direct contagion, favored by bad hygienic conditions where these people lived, as regarded their dwelling and the nutriment of which they partook. It is probable that the contagious agent was the micro-organism that I have described. To affirm this positively it would be necessary to first reproduce the affection by means of inoculation in receptive animals. My object for the time is only to record the existence of a microbe in the blood of patients affected with scurvy, a microbe developing easily in a nutritive medium saturated with salt.—*Domingos Freire.*

Demonstration of Amœba Coli in Dysentery.—Dr. Lafleur reported a case of dysentery in which the amœba coli had been found in the stools, and exhibited the living parasites under the microscope.

The patient, a man 27 years of age, had been employed as a fireman for a year and a half on the Steamship Karlsruhe, plying between Bremen and Baltimore. He had been in the tropics for a short time in 1880, but not since. While at sea, two

weeks before admission to the hospital, he had slight epistaxis, followed by vomiting and diarrhœa. At the end of a week he was having very numerous bloody stools, accompanied by tenesmus and abdominal pain. On admission to the hospital, May 18, he was much emaciated, weak, with moderate fever and a rapid dicrotic pulse. His stools were greenish-brown, watery, fetid, and contained blood, mucus, much shreddy detritus, and here and there little masses of pus.

On the 19th of May there were found in the stools numerous actively moving amœboid bodies, varying considerably in size, the average being five to seven times the size of a leucocyte. The bodies were of a very pale bluish-green color, and contained from one to many small vacuoles surrounded by fine and often highly refracting granular particles, the whole being invested by a homogeneous outer zone, looking like finely ground glass.

The movements were rapid and flowing in character, the initiative being always taken by the homogeneous outer layer, which was at first slowly projected from some part of the surface as a hemispherical knob, and into which the granular centre of the body then flowed with a sudden, rapid motion. When at rest the bodies usually assumed a circular or oval outline. In some it was possible to make out a circular nucleus. The number of the amœbæ varied greatly with different specimens examined. In some cases as many as eight were seen in one field with a No. 7 Leitz objective. Several stools were examined each day, and in every case actively moving amœbæ were found.

Attention to the following points were found to facilitate the detection of the amœbæ:

1. The stools were passed into a bed-pan previously warmed with hot water.

2. The examination was made immediately, or as soon as possible after the evacuation.

3. Certain portions of the stools were found to contain the amœbæ more uniformly and in greater abundance than others. Small grayish-yellow pus collections, which could easily be picked out with forceps from the brownish fluid part of the stools, always contained amœbæ, often in abundance. In the viscid blood-streaked mucus they were sparingly found, while in the large greenish or yellowish-brown shreddy masses of detritus they were only occasionally seen, and were almost invariably motionless.

A point of special interest was that the case appeared to be one of endemic dysentery, the patient having only once been in the tropics, in 1880, and having enjoyed perfect health until his present illness.

Dr. Welch remarked that this was the second case of dysentery reported on this continent in which amœbæ had been found, the first being that reported by Dr. Osler, in the *Johns Hopkins Hospital Bulletin No. 5*, for May, 1890. The present demonstration of the organism was the first made to a medical society in this country. —*Johns Hopkins Hospital Bulletin.*

KRAUROSIS VULVÆ.—Under this name Smith describes the following case, in the *Buffalo Medical and Surgical Journal*:

Mrs. A., aged fifty-two, married, and the mother of two children, the younger aged sixteen, consulted me in April, 1888. She was of a marked nervous temperament, slight and delicate figure, but apparently in good health. She had never had syphilis nor gonorrhœa. Six years before, and four years prior to the cessation of menstruation, she first noticed a pruritus vulva, attended with pain and scalding upon urination. The pruritus gradually increased for about one year, when she consulted a physician, who found and removed a urethral caruncle. Following the operation there was relief from the pain and scalding upon urination, but no abatement of the pruritus. On consulting a second physician, several months later, she was told that her trouble was undoubtedly the result of diabetes. She was therapeutically and dietetically treated for diabetes for nearly a year, and was given carbolized washes and various ointments for the vulva. The carbolized washes somewhat relieved the pruritus, although it was always present in some degree. This physician made no local examination and never examined the urine for sugar, although he was positive in his diagnosis of diabetes.

I carefully examined several specimens of her urine, obtained at different times, and found no trace of sugar.

On examination of the vulva a most peculiar condition was found. The hairs on the parts were few, harsh and gray. The vulva was slightly gaping. The labia majora were shrunken, inelastic and composed almost entirely of integument, the subcutaneous tissue having nearly disappeared. A little over one-half of the lower or posterior portions of the labia minora were atrophied, while the upper portions were natural in size and appearance, except for the purple spots mentioned below. The vaginal opening was so narrowed that only the small, virgin size of Sims' speculum could be inserted. About one-fourth of an inch below the meatus urinarius was an exquisitely sensitive patch of dark purple color, a little over one-fourth of an inch in width, and extending downward and to the right for about one-half of an inch. Another similar spot, but smaller, was found on the inner or vaginal surface of the upper portion of the left labium minus. Small and exceedingly thin membranous tags were all that remained of the hymen. The clitoris was normal. The integument of the lower portion of the labia minora and on the inner surface of the labia majora was dry, smooth, shining, and bluish-white in color, with here and there a few small thickened spots of a milky-white color. The spots, and the atrophied areas generally, were not so sensitive to pressure as were the red spots. In fact, the kraurotic changes seemed to have been nearly completed in the lower portion of the vulva, while they were still progressing in the upper portion.

The uterus measured a plus two inches in depth. A slight thin discharge escaped from the os. Thinking that the pruritus might possible be caused, or at least aggravated, by the discharge, I inserted into the vagina, or had the patient to do so, twice a day, a dry absorbent cotton tampon to collect the discharge and prevent its escape into the vulva. This was continued for two weeks with no result.

Having, by this time, decided that nearly the whole trouble arose from the two purple spots, I applied to them equal parts of tincture of iodine and carbolic acid. This treatment resulted in a considerable diminution of the pruritus, but did not remove the spots. I then applied pure carbolic acid, which caused excruciating pain, but was, in a short time, followed by complete relief of the pruritus. These applications were continued from time to time, until the spots were entirely destroyed, or at least until they disappeared. Following the disappearance of the spots was a considerable, but not total, relief from the pruritus. Gradually the pruritus grew less and less until it, too, disappeared. In the two years which have elapsed, since the cessation of treatment, there has been no return of the sensitive spots, or of the pruritus.

Medical News and Miscellany.

RUSSIA has 13,000 doctors.

SMALL-POX prevails in Madrid.

CHOLERA has appeared at Massowah.

DIPHTHERIA is prevalent at Oakwood, Ohio.

BAKERS knead their bread by the aid of electric motors.

HICCOUGH may be stopped by nicotine, in doses of $\frac{1}{40}$ grain.

DR. P. S. DONNELLAN will remove, October 1, to 1122 Walnut street.

ELECTRIC incandescent lights are recommended to keep poultices warm.

THE dose of strophanthin is $\frac{1}{300}$ grain. It may be given in distilled water.

THE Jewish Hospital suffered a loss by fire amounting to $700 on September 29.

LATE reports upon salol as a remedy for Asiatic cholera are decidely unfavorable.

DR. L. D. WEBSTER has been lying ill at the house of a relative in Lancaster county.

MANCHESTER inflicts a penalty of $25 on street merchants for continuous shouting.

SCHMELTZ, of Nice, removed a sarcomatous breast during anæsthesia caused by hypnotism.

THE death-rate of St. Paul for August was 9.88 per 1,000; total deaths, 178; births, 269.

THE Bishop of Chester urges the daily opening of churches to secure thorough ventilation.

EDISON is said to be using lithium salts by electrical endosmosis, for the cure of gout, with success.

SAFETY bicycles are said to be more apt to cause hernia than the old-fashioned, break-neck affairs.

DR. LOUIS STARR has returned from Canada and will be at Devon Inn during the month of October.

AN epidemic prevails in the southern suburbs of Berlin, which the physicians believe to be influenza.

PROF. GEORGE STRAWBRIDGE has resigned his chair of Otology in the University of Pennsylvania.

DR. FRANCES DICKINSON has been appointed one of the Lady Managers of the World's Fair in Chicago

THREE deaths from bromic ether are reported from Berlin; where this anesthetic is much used by dentists.

DR. H. A. HARE has removed from 117 South Twenty-second street to 222 South Fifteenth street, Philadelphia.

DR. R. G. PEASE, eighty-seven years old, was found dead in his lodging last week; starvation being the cause.

DR. WALTER M. FRANKLIN, of Lancaster, has been at the Lafayette, accompanied by his friend, J. W. B. Bausman, of the same town. Dr. Franklin was for some time a resident physician at the Pennsylvania Hospital for the Insane, in West Philadelphia.

THE New York Polyclinic has decided to admit to its classes only those holding the diplomas of regular medical colleges.

DR. S. WEIR MITCHELL has been entertaining Mr. and Mrs. Joseph Chamberlain, of England, at his Newport cottage.

THE commander of the Mysore Force has directed that two men in each company shall be instructed in the art of chiropody.

A GRENOBLE druggist was fined one hundred dollars for putting up naphthaline in a prescription that called for beta-naphthol.

A WRITER in the *University Med. Magazine* thinks that phthisis gives a higher mortality rate in narrow streets than in wide ones.

PROF. SAMUEL WOLFE gave the opening address at the Medico-Chirurgical College, October 1. A large audience was present.

QUEBEC has offered one hundred acres of land to every father of twelve or more living children, and 1,250 claims have been filed.

THE Medico-Chirurgical Hospital has opened an Annex at Seventeenth and Summer streets, while the main hospital is being rebuilt.

A YOUNG lady in London is said to have been fatally poisoned by drinking sherbet; the syrup being colored red with aniline containing arsenic.

DR. PEARSON SERRILL, of Gordon, was summoned to Shoemakerville to attend the victims of the railroad accident in which Dr. Vanderslice lost his life.

THE address of the *Pacific Medical Journal* (successor to the *Pacific Medical and Surgical Journal and Western Lancet*) is now 720 Broadway, San Francisco, Cal.

ABADIE uses the galvano-cautery in purulent ophthalmia, when ulceration with destruction of corneal tissue has occurred and the case is considered desperate.

GEORGE S. HULL reports a case of noma, or gangrene of the cheek, following pneumonia, in a child eight years old. Recovery ensued, with great deformity.

BRITISH COLUMBIA compels British and Canadian graduates to pass an examination and pay a fee of $100, before they are allowed to practice in that province.

DR. A. VICTORIA SCOTT, Vice-President of the National Woman's Health Association, lectured on Tyrotoxicon, Monday evening, last week, at 1229 Chestnut street.

DR. THOMAS FELL, of Annapolis, Maryland, has been chosen a delegate to the General Convention of the Brotherhood of St. Andrew, which meets in this city this month.

THE Mission Hospital at Pekin treated nearly 20,000 cases last year. Among the curiosities was a youth who cut off a piece of his calf to make soup for his sick father.

RUSSIAN baths are recommended by a sufferer from rheumatism. "After several trials, one should take the steam as hot as he can bear it on the affected part of his body."

DR. JOHN H. B. AMICK, lately appointed by President Harrison, and confirmed by the Senate, as Drug Examiner to succeed Dr. Laughlin, was sworn in last Monday week.

DR. WILLIAM PEPPER spoke last week at Association Hall on "The Importance of Health and How to Preserve It." This was the first of the series of lectures on "Health Talks."

DR. T. RIDGWAY BARKER, one of the most popular young physicians connected with the Medico-Chirurgical College, was married to Miss Mary Gumbes, at St. Andrew's Church, last Wednesday week.

W. H. SCHIEFFELIN & Co.'s pil. phenacetine et caffein. citrat. composed of phenacetine-Bayer, 3 gr.; caffeinæ citrat., 1½ grains, is especially desirable to use in cases of migraine and nervous headaches.

VISITORS to the late Congress can be distinguished from ordinary doctors by the fierce Bismarckian cut of their beard, and the commanding manner with which they pronounce the words "Zwei lager!"

DR. HAMMOND says that thin soles are the worst propagators of disease amongst women. Why don't he go further, and state what are proper gaiters?
—*New York News.*

THE report has been made and denied that Sister Rose Gertrude is going to marry Dr. Lutz, at Molokai. It is to be hoped that the report is true; and that this noble woman will transmit her heroism to numerous descendants.

THE Brazilian army medical corps consists of two hundred men, whose rank is graded from that of general down to lieutenant. The pharmaceutical corps contains eighty-five, from lieutenant-colonel down to sub-lieutenant.

THE antiseptic artificial tympanic membranes invented by Dr. Cousins, and described some time since in this journal, can be procured from the American agents, Messrs. Fairchild Bros. & Foster, 96 Maiden Lane, New York City.

THE *Lancet* reports the poisoning of over one hundred men at a "free tea." The viands consisted of boiled beef, ham and tea, and the toxic agent is supposed to have been a ptomaine in the beef; which is said to have been tainted.

THE pig-headedness of the old army officers who oppose the giving of due credit to the medical corps can hardly resist such figures as these: In the Lushai expedition, 9 persons were killed in action, 207 died of diseases, and 2,122 were invalided.

THE recent graduate looks down from his lofty height upon his preceptor, whom he denominates an old fogy. Each "tough" case, however, lessens the youngster's self-esteem and increases his respect for his senior; until in a few years he begins to wish he knew a quarter as much.

W. B. JENNINGS, of Marshall, Texas, has discovered a very effective and simple means of getting rid of roaches. It is simply to put a toad in any room infested with them. Last summer a large toad got into the post-office and remained there over night. Afterward the office was clear of roaches until a few weeks since, when they reappeared. Another toad was placed in the room and the roaches again disappeared.

WHILE Italy leads in the revival of cremation, she has an unusual need for it, as her burial arrangements have been defective. In 1885, out of her 8,258 communes, 120 had no burial places; in 274 the dead were interred in churches, and in 628 the bodies were thrown into a common pit.

DURING August St. Louis buried 710 of her citizens. The principal incentives were: Diarrhœa, 74; phthisis, 70; marasmus, 46; convulsions, 42; inanition, 37; old age, 32; pneumonia, 28; Bright's, 21; malaria, 26; typhoid, 19; diphtheria, 15. The births during August numbered 990.

DURING the eight years ending with 1888, there were in Prussia 289 suicides of school children. Forty-nine of these were girls. The causes assigned were: Fear of punishment, 80; mental disease, 26; morbid ambition, 19; fear of examination, 16; practical joking, 7; disappointed love, 5.

ETHER drinking is said to have arisen in Ulster during Father Matthew's visits. Those who had taken the pledge found that, without breaking it in letter, they could get drunk on ether. Methyl ether can be had at any time, and the quantity needed, a half ounce, costs only one cent.

ARMOUR appears to be on bad terms with the rumor committee. It has been alleged that the flesh of diseased animals is exported; that of healthy cattle being reserved for home use. This is too wildly improbable to require denial. Much more likely that the diseased meat is reserved for home consumption.

DR. SCHWENINGER, Bismarck's physician, has been compelled to give up all his professional work, owing to over-exertion and the spending of two nights out of every three on railroad cars. The advice he would have been sure to give one of his patients, under such circumstances, he failed to apply in his own case.

IT is said that while 43,000 pilgrims to Mecca arrived at the Red Sea ports, all provided with return tickets, but 28,000 will avail themselves of them. The other 15,000 have died of cholera. Of pilgrims coming by land no account can be kept; but one caravan of 2,500 is said to have been reduced to 900 when it reached Mecca.

A NEWCASTLE woman had a "wen" on her neck; for which a "wise woman" advised her to go alone and lay all night in an outhouse with the hand of a corpse on the wen, as an infallible cure. She did so; and the shock was so great that she did not rally for months, but finally died of the wen. The corpse was that of a suicide.

THE College of Physicians and Surgeons in Chicago opened its winter term, September 23. Addresses were given by S. A. McWilliams and Prof. Silva. The speakers referred to the loss the college had sustained in the death of Prof. R. W. Jones, a short time since. The class promises to largely exceed that of last winter.

AT a meeting of the Philadelphia County Medical Society, last Thursday week, at Thirteenth and Locust streets, Dr. Joseph Tunis, by invitation of the Board of Directors, read a paper, entitled Rib Fracture from Muscular Action, with a Report of Forty-two Collected Cases. Dr. Joseph Price also read a paper on the subject of Certain Causes of Major Pelvic Troubles Traceable to Minor Gynecology.

Everybody knows that the Standard Oil Company has amassed an almost incredible amount by the most gigantic and selfish monopoly of modern times. And yet when its President, Mr. Rockafeller, gives back to the country a trifle in the shape of an endowment to a University, he is lauded as a benefactor. This world is a paltry affair, after all.

Dr. George W. Grimm, Health Officer of Buffalo, was in the city, seeking information of the Health Board system here, last Tuesday week. He was taken in charge by President Ford, who explained to him the system used in this city. Dr. Grimm has been to Boston, New York and Baltimore, and spent a few days here before returning home.

Ground was broken at the Philadelphia Hospital for the new museum, which adjoints the dead-house. The new building will be forty feet by forty feet, and sixteen feet high. The light will come from the roof, and so arranged as to give the fullest light for examinations. The cost will be $2,500, and the museum will be under the charge of Dr. Formad.

Dr. Mary Fisher has not become Resident Physician at St. Clement's Hospital, but is on the medical staff as Attending Physician; a place she has occupied for over a year. She has been compelled to resign her position in the Normal School on account of the demands of her large and increasing practice. *New England Medical Monthly* please copy.

Dr. B. W. Richardson protests in an exchange against the proposed use of the lethal chamber in capital cases, on the ground that it would be a degradation of science; and there are those who will be uncharitable enough to think he wants the profession to run the dispatching process itself at so much per visit. This is a little fee-bill, but it will have to go.

Duboisia Hopwoodii, an Australian shrub, is proposed as a substitute for tobacco. It is said that the leaves contain an alkaloid identical with nicotine. If so, it is not at first sight easy to see what is gained by the substitution. If duboisia were to be substituted for cabbage, burdock, old gum shoes, oakum, and the other material used in the manufacture of cigarettes, a decided benefit might result.

Efforts are being made in India to raise the "age of consent" to twelve years; not that this is the proper age at which to begin sexual relations, but as an improvement on the present custom. In a late number of the *Indian Medical Gazette* we note a case in which a Hindoo "child wife," a mere undeveloped infant, died from the effects of injury received from her husband's efforts at sexual intercourse.

The following extract is from Mrs. Cox's report on the Pine Ridge Indian Agency: "There is one thing much needed on the reservation—that is a hospital. The sick have no chance of recovery, having no care; their medicine man is sent for, and he puts charms on them and says some chants, then demands a pony for payment of his services. In all our missionary efforts now the hospital is considered the strongest agency of civilization; there should be no delay in having them established."

Swindling his Fellow Doctors.—Dr. W. W. Dyson, a young man, had a hearing before Magistrate Pole at City Hall, on the charge of larceny and false pretence.

Dr. L. G. Hammond, of 712 South Tenth street, said the defendant obtained his hypodermic syringe on the representation that he was treating a case of angina pectoris in the neighborhood and had left his own syringe at home. He did not return it.

Dr. A. L. Rainear, of 2026 Diamond street, said he loaned Dyson a copy of Da Costa's Diagnosis, valued at $6.50, in July last, for a few days. Dyson said he wished to consult it to obtain information on a paper which he was writing. They had been classmates. He loaned the book, telling Dyson to return it within forty-eight hours; but he had not sent it back yet. The defendant claimed that he had sent Dr. Hammond's syringe home by a colored man. He was put under eight hundred dollars bail.

We have spoken of the disposition exhibited by some foreign journals to treat American books with undue severity. It gives us pleasure to note an instance of a very different spirit, and to call attention to a British compliment to a deserving American work. In reviewing Gould's Dictionary, the *British Medical Journal* says: "In fact, taking cheapness and handiness into account, we certainly think this the general practitioner's model dictionary, and cordially recommend it to our readers."

The State Board of Medical Examiners of New Jersey will meet in the Senate Chamber at the Capitol in Trenton, Thursday, October 9, at 9 o'clock in the morning, for the purpose of examining candidates presenting themselves for a license to practice medicine in that State. Under the present medical law of that State every person desiring to practice medicine or surgery, in any of its branches or in any way, who was not legally registered previous to July 4, 1890, must first obtain a license from this Board.

A Physical Training School and Gymnasium for Women and Children has been opened at 1808 Green street, with Dr. James Farrar Stone as Director. The growing popularity of physical training, as a means of strengthening the system and developing the frame, is a hopeful sign of the times. As the benefits of sanitation, in its widest sense, become known to the inner consciousness of man, sickness "by mysterious dispensation of Providence," and the consequent drugging, will become matters of ancient history.

It is proposed to pass a law in Russia providing that every factory which is eight versts distant from a city shall maintain a hospital with from ten to forty beds, according to the number of laborers it employs. It must also have a drug store, and keep a licensed druggist and physician constantly on the premises. A circuit physician, appointed by the Government, must regularly pay visits to such factory hospitals, and see to it that the drug stores be properly fitted out, and that the resident pharmacists and physicians be on their respective posts.

An Opportunity.—A cash prize of one thousand dollars has been offered for the best short story or novel, having the Grandfather Mountain and the beautiful scenery of that locality woven into the plot.

This mountain, situated as it is in the most picturesque part of Western North Carolina, furnishes an attractive setting for an interesting story.

The selection will be made by a committee of competent reviewers, and the story must not be less than ten nor exceed fifty pages.

Detailed information may be obtained of the Linville Improvement Company, of Linville, North Carolina.

THE Harlem Medical Association held its first regular meeting on Wednesday, October 1, at 5 West 125th street. Papers were presented by Drs. Richard, Truax, Manley, Santvoord, and Fridenberg. The following are the officers for the ensuing year: President, Dr. E. Fridenberg; Vice-President, Dr. M. C. O'Brien; Treasurer, Dr. D. Franklin; Secretary, Dr. A. H. Leary; Trustees, Dr. S. E. Gibbs, Dr. M. R. Richard, Dr. R. Van Santvoord; Committee on New Members, Dr. G. H. Cocks, Dr. M. R. Richard; Committee on Publication, Dr. T. H. Manley, Dr. A. H. Leary.

NEW PATENTS, ETC:—

PATENTS ISSUED SEPTEMBER 23, 1890.

Inhaler	F. W. Wiesebrock	New York, N. Y.
Insecticide	Farwell & Rhines	Watertown, N. Y.
Uterine supporter, A.	A. T. Sherwood	San Francisco, Cal.
Hypodermic syringe	Fergen & MacPhinnie	Chicago, Ill.

TRADE-MARKS ISSUED SEPTEMBER 23, 1890.

Herb remedies for certain chronic diseases. (The figure of a Chinaman, clothed in Chinese garb, sitting in a chair, with a fan in his right hand, a cap on his head, and wearing spectacles)	G. C. Cooper	Detroit, Mich.
Remedy for blood and kidney diseases. (The portrait of the registrant, "Samuel P. Hite.")	S. P. Hite	Staunton Va.

LABEL ISSUED SEPTEMBER 23, 1890.

"Ferro-manganese water"	Excelsior Springs Co.	Kansas City, Mo.

PATENTS LAPSING SEPTEMBER 23, 1890.

Medical compound, or opium-cure	U. H. Kellogg	Jamestown, N. Y.
Sulphuric acid manufacture	Thomson & Greene	Philadelphia, Pa.

—Charles J. Gooch, *Patent Attorney.*

LOCK BOX 76, WASHINGTON, D. C.

INTERMENTS in Philadelphia, from September 20–27, 1890:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Anæmia		1	Homicide	1	
Alcoholism	2		Inflammation brain	2	8
Apoplexy	8		" bronchi	1	2
Bright's disease	9	1	" bladder	2	
Cancer	5		" kidneys	4	
Casualties	8		" larynx	1	1
Cerebro spinal meningitis	1	1	" liver	1	
Congestion of the brain	1	6	" lungs	4	8
" " lungs	1		" heart		1
Child birth	1		" peritoneum		3
Cholera infantum		15	" s. & bowels	2	6
" morbus	1		" tonsils		1
Cirrhosis of the liver	2		Inanition	1	12
Consumption of the lungs	55	4	Intussusception		1
" " bowels	1		Marasmus		19
Convulsions		8	Old age	15	
Croup		8	Obstruction of the bowels	1	
Cyanosis		2	Ossification of the heart	1	
Debility	5	3	Paralysis	1	1
Diabetes	1		Septicæmia		1
Diphtheria		12	Softening of the brain	2	
Disease of the liver		1	" " spinal cord	1	
Disease of the kidneys		1	Suppuration of ear	1	
Disease of the heart	27	3	Suffocation	2	
Drowned	1		Suicide, shooting	4	
Dysentery	3	2	Syphilis		1
Dropsy	1		Teething		1
Embolism, arterial	1	1	Tumor	1	
Fatty degener. of the heart	1		Uræmia	1	
Fever, typhoid	7	1	Whooping-cough		3
" typhus		3			
Hemorrhage from lungs	2		Total	192	143
" " uterus	1				

BOARD OF HEALTH.—At the last meeting of the Board of Health Chief Inspector Kennedy made a report concerning his inspection of the Alaska District. The number of houses inspected was 2,770, containing a population of 16,734 persons; 424 houses contained nuisances, which were ordered abated. The character and habits of a large number of the residents were such as to make it almost impossible to keep the district clean. A reckless disregard of cleanliness was the rule, particularly among the Italians and Russians. In the Italian quarter persons of all ages were crowded together, a family occupying one room, perhaps 12 by 14 feet. The number of vaccinations reported was 16,395; persons reported sick, less than 100. Number of typhoid cases from January 31 to July 31, 16; scarlet fever cases, 9.

A resolution was adopted ordering the Port Physician to detain all vessels from Spain and Japan, and hold them in the stream until instructed by the Board as to their disposition.

RESUME OF MEDICAL PRACTICE ACTS IN THE DIFFERENT STATES.

Alabama.—Examination and endorsement of diploma by a County Medical Society. Violation of law, $100 fine. Passed Feb. 9, 1887.

Arizona.—Register diploma with county recorder. No examination.

Arkansas.—Five years' practice in State. Registration of diploma, or examination by State Board of Examiners.

California.—Registration of diploma after endorsement by the State Board of either of the schools. After 1890–91 three sessions of six months each in separate years.

Colorado.—Endorsement of diploma or examination by State Board of Examiners. After July 1, 1893, three years' study, including three sessions of at least twenty weeks each in different college years.

Connecticut.—No law, except against advertising itinerant physicians.

Dakota.—Endorsement of diploma or examination by board. After 1891, three sessions required.

Delaware.—Eight years' practice in State. Registration, and license by county clerk.

District of Columbia —Endorsement of diploma or examination by State Medical Board.

Florida.—Endorsement of diploma or examination by either State Board of Examiners. The Homœopathic Board, which meets semi-annually, will endorse Eclectic diplomas.

Georgia.—Register diploma before Clerk of Superior Court.

Idaho.—Record diploma at county seat.

Illinois.—Endorsement of diploma for registration, or examination by State Board. Preliminary entrance examination required, or equivalent. After 1890–91, four years' study and three sesions of at least twenty weeks each.

Indiana.—Registration of diploma before county clerk.

Indian Territory.—Examination or registration before different boards in each Indian nation.

Iowa.—Endorsement of diploma or examination and registration by State Board of Medical Examiners. After 1890–91, four years' reading and three sessions of six months each in different years.

Kansas.—Certificate issued by either of the three State societies.

Kentucky.—Registration and endorsement of diploma by Secretary of State Board of Health, or ten years' practice.

Louisiana.—Recording diploma before county clerk or justice of the peace after endorsement of same by State Board, which is "required to certify to the diploma of any medical institution of credit and respectability without regard to its system of therapeutics."

Maine.—No law.

Maryland.—Certificates issued by State Board of Health and recorded.

Massachusetts.—No law.

Michigan.—Record diploma with county clerk.

Minnesota.—Examination by State Board of Examiners without regard to diploma. Certificate of three sessions college attendance required.

Mississippi.—Examination by a County Board of Medical Censors.

Missouri.—Registration after examination or endorsement of diploma by State Board of Medical Examiners.

Montana.—Ten years' practice, or endorsement and registration of diploma, or examination by State Board. Three sessions of at least four months now required.

Nebraska.—Registration before county clerk.

Nevada.—Registration of diploma before county recorder. Penalty $500 for violation.

New Hampshire.—Board of Censors of each medical society can issue licenses.

New Jersey.—Record a copy of diploma from a "legally chartered medical college of any State" with county recorder.

New York.—Endorsement of diploma for registration by any college within the State. Students who began study of medicine after June, 1889, must have certificate of regular preliminary qualifications, and pass examination before either of the three State Boards, in addition to attendance upon a college requiring at least three sessions.

North Carolina —Examination by State Board.

Ohio.—No law enforced, except the one prohibiting any physician from suing patients for service unless he holds a diploma.

Oregon.—Registration after endorsement or examination by State Board of Examiners.

Pennsylvania. — Registration of diploma before county prothonotary after endorsement by some medical college within the State. College allowed to charge a fee of $25 for examination.

Rhode Island.—No law.

South Carolina.—Endorsement of diploma or examination by a college within the State, or State Board of Medical Examiners.

Tennessee.—Registration after endorsement of diploma, or examination by State Board.

Texas.—Registration after endorsement of diploma, or examination by a District Board of Examiners.

Vermont.—Registration after endorsement of diploma, or examination by a Board of Medical Censors appointed by either State Medical Society.

Virginia.—Examination only by State or District Examining Boards.

Washington.—Examination or endorsement of diploma by State Medical Board.

West Virginia.—Registration after endorsement by the State Board of Health.

Wisconsin.—Examination or endorsement of diploma by any State or county society.

—*Eclectic Med. Journal.*

THE NEW JERSEY LAW.—

An Act to regulate the Practice of Medicine and Surgery, to license Physicians and Surgeons, and to punish persons violating the provisions thereof.

1. Be it enacted by the Senate and General Assembly of the State of New Jersey, That the Governor shall appoint a Board of Examiners, to be known as the State Board of Medical Examiners; said board shall consist of nine members; the appointees shall be persons of recognized professional ability and honor; the terms of office of said board shall be three years, or until their successors are appointed; provided, however, that the members of the board first appointed shall be divided into three classes, each class to consist of three persons; the first class shall hold office under said appointment for one year, the second for two years, and the third for three years from the date of their appointment, and thereafter each member of said board shall be appointed for a term of three years; and provided further, that said board shall consist of five old school, three homœopaths and one eclectic; it is further provided, that no member of said board shall serve more than two terms in succession; no member of any college or university having a medical department shall be appointed to serve as a member of said board.

2. And be it enacted, That said Board of Medical Examiners shall elect a president, a secretary, and a treasurer; it shall have a common seal, and the president shall be empowered to administer oaths in taking testimony upon any matter pertaining to the duties of said board; said board shall hold meetings for examinations at the capitol building of this State, the second Thursday of January, April, July and October of each year, and at such other times and places as the board shall deem expedient; said board shall keep an official record of all its meetings, also an official register of all applicants for examination for a license to practice medicine and surgery in this State; said register for license shall show the name, age, and last place of residence of each candidate, the time he or she has spent in medical study, in or out of medical school, and the names and locations of all medical schools which have granted said applicant any degree or certificate of attendance upon lectures in medicine; said register shall also show whether such applicant was rejected or licensed under this act; said register shall be *prima facie* evidence of all matters therein contained.

3. And be it enacted, That all persons hereafter commencing the practice of medicine or surgery, in any of its branches in this State, shall apply to said Board of Medical Examiners for a license so to do; applicants for examination shall be divided into three classes, to wit: first, persons graduated from a legally chartered medical school not less than five years before the date of application for a license; second, all other persons graduated from a legally chartered medical school; and third, medical students taking a regular course of medical instruction; applicants of the first class shall submit to examination upon the following named branches, to wit: materia medica and therapeutics, obstretics and gynecology, practice of medicine, surgery and surgical anatomy; those of the second and third class shall submit to examination upon anatomy, physiology, chemistry, pathology, materia medica and therapeutics, histology, hygiene, practice of medicine, surgery, obstetrics, and gynecology diseases of the eye and ear, medical jurisprudence and such other branches as the board may deem advisable; the question for examination of applicants of the first and second classes shall be the same in branches common to both; said board shall not license applicants of the second and third classes after January first, one thousand eight hundred and ninety-two, until satisfactory proof is furnished that the applicant has studied medicine and surgery three years, is of good moral character, and over twenty-one years of age; applicants of the third class, after they shall have studied medicine and surgery at least two years, can be examined upon the following named branches, to wit: anatomy, physiology, chemistry, histology and pathology, materia medica and therapeutics; if said examination is satisfactory to all the members of said board, it may issue a certificate that

the applicant has passed a final examination in these branches, and such certificate, if presented by the applicant when he or she shall make the application for license to practice, shall be accepted by said board in lieu of an examination in those branches; all examination shall be both scientific and practical, but of sufficient severity to test the candidates' fitness to practice medicine and surgery.

4. And be it enacted, That all examinations shall be in writing; in all examinations the questions and answers must be, except in materia medica and therapeutics such as can be answered in common by all schools of practice; and if the applicant intends to practice homœopathy or eclectism the member or members of said board of those schools shall examine said applicant in materia medica and therapeutics; if said examination is satisfactory, the board shall issue a license entitling the applicant to practice medicine in this State; the votes of all examiners shall be by yes or no, and written, with their signatures, upon the backs of the examination papers of each candidate for the respective branches; a license shall not be issue in any case unless the applicant passes an examination satisfactory to all the members of said board; said examination papers shall be kept on file by the secretary of said board, and shall be *prima facie* evidence of all matters therein contained; any applicant refused a license by said board for failure on examination may appeal from the decision of said board to the appointing power thereof, who may thereupon appoint a medical committee of review consisting of three members, one from each school of medicine, who shall examine the examination papers of the said applicant, and from them determine whether a license should issue, and their decision shall be final; if said commission by an unanimous vote reverse the determination of the board, the board shall thereupon issue a license to the applicant, the expense of said appeal shall be borne by the applicant; all licenses shall be signed by the president and secretary of said board, and shall be attested by the seal thereof; the fee for examination shall be fifteen dollars for each applicant of the first and second classes, and twenty dollars for each applicant of the third class; it shall be paid to the treasurer of the board and applied toward defraying the expenses thereof.

5. And be it enacted, That the board may, by a unanimous vote, refuse to grant, or may revoke a license for the following causes, to wit: chronic and persistent inebriety, the practice of criminal abortion, conviction of crime involving moral turpitude, or for publicly advertising special ability to treat or cure diseases which, in the opinion of said board, it is impossible to cure; in complaints for violating the provisions of this section, the accused person shall be furnished with a copy of the complaint, and given a hearing before said board in person, or by attorney.

6. And be it enacted, That the person so receiving said license shall file the same, or a certified copy thereof, with the clerk of the county in which he or she resides, and said clerk shall file said certificate, or copy thereof, and enter a memorandum thereof, giving the date of said license, and the name of the person to whom the same is issued, and the date of said filing, in a book to be provided and kept for that purpose; and for which registry the said county clerk shall be entitled to demand and receive from each person registering the sum of fifty cents; in case a person so licensed shall so move into another county of this State, he or she shall procure from the said clerk a certified copy of said license, and then file the same with the clerk in the county to which he or she shall remove; said clerk shall file and enter the same with like effect as if the same was the original license, and for which registry the said county clerk shall be entitled to demand and receive the sum of fifty cents.

7. And be it enacted, That this act shall not apply to the commissioned surgeons of the United States army, navy or marine hospital service, or to regularly licensed physicians or surgeons in actual consultation from other States or Territories, or to regularly licensed physicians or surgeons actually called from other States or Territories to attend cases in this State, or to any person now entitled to practice medicine in this State.

8. And be it enacted, That any person shall be regarded as practising medicine or surgery, within the meaning of this act, who shall append the letters M.D. or M.B. to his or her name, or prescribe, for the use of any person or persons, any drug, or medicine, or other agency for the treatment, cure, or relief of any bodily injury, infirmity, or disease; this act shall not apply to dentists in the legitimate practice of their profession.

9. And be it enacted, That any person hereafter commencing the practice of medicine or surgery in this State without first having obtained the license herein provided for, or contrary to the provisions of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than fifty dollars or more than one hundred dollars, or by imprisonment in the county jail for a period of not less than ten or more than ninety days, or both fine and imprisonment; it shall be the duty of the respective county attorneys to prosecute violations of the provisions of this act.

10. And be it enacted, That the expenses of said board and of the examinations shall be paid from the license fees above provided for, and if any surplus remain, the same may be distributed among the members of said board as a compensation for their services as members, but otherwise shall receive no compensation whatever.

11. And be it enacted, That all acts or parts of acts, general or special, now existing, not in accordance with the provisions of this act or inconsistent therewith, are hereby repealed.

Approved May 12, 1890.

Regulations for conducting examinations.—1. Each candidate shall present certificates of age, moral character, preliminary education, and time and place of medical studies. Each of these certificates shall be accompanied by an affidavit if the board so directs.

2. All examinations shall be in writing (with ink) upon paper furnished by the Secretary.

As many candidates may be examined at each session as circumstances will permit, making each section as large as convenient.

3. The examinations shall continue two days; the sessions of the first day being from 9-11, 11-1, 2-4, 4-6 and 8-10 respectively; the sessions of the second day being from 9-11, 11-1, 2-4 and 4-6 respectively. The final meeting for the adjudication of the results of the examinations shall be held at 8 o'clock in the evening of the second day.

4. The Examiner in each branch shall not be engaged in any other business except supervising the examination while it is going on, and there shall be one or more associate Examiners present with him during the entire session.

5. A total average of 75 per cent. shall be necessary to license a candidate, providing that in no one branch shall the average percentage be less than 33⅓ per

cent., in which case, however, should the total average percentage in all the other branches be above 75 per cent., the candidate may be granted a second examination immediately upon that branch.

6. Each candidate shall sign a pledge that he has neither given nor received any information concerning the examination, or used in any way unfair means during the same.

This pledge, with the real name and number in a sealed envelope, with the number upon it, together with the examination paper, which shall be signed only with the number, shall be given to the Secretary immediately after the conclusion of the examination.

The same number shall be used by a candidate during the whole series of his examinations.

7. Any candidate found guilty of violating his pledge, in giving or receiving information, shall be adjudged guilty of grossly immoral conduct, and shall be rejected.

8. No fee will be returned to a candidate after he has commenced his examination. A rejected candidate can be re-examined within one year without an additional fee.

9. These regulations may be amended by a two-thirds vote of the Board; said amendment having been read at a previous meeting, and being spread in full upon the call for the meeting at which action thereon is to be taken.

Adopted September 18, 1890.

Sections.—1. Materia Medica and Therapeutics. 2. Obstetrics and Gynecology. 3. Practice of Medicine. 4. Surgery (and Surgical Anatomy). 5. Anatomy. 6. Physiology. 7. Chemistry. 8. Histology, Pathology, and Diseases of the Eye and Ear. 9. Hygiene and Medical Jurisprudence.

Members, 1890–91.—H. C. Hendry, M.D., Newark; Henry G. Wagoner, M.D., Somerville; A. H. Worthington, M.D., Trenton; William L. Newell, M.D., Millville; Eugene Tiesler, M.D., Orange; Wm. Perry Watson, M.D., Jersey City; D. R. Atwell, M.D., Hoboken; Geo. W. Brown, M.D., Long Branch; Armin Eubelacker, M.D., Morristown.

Officers, 1890–91.—W. L. Newell, M. D., President; Wm. Perry Watson, M.D., Secretary; A. H. Worthington, M. D., Treasurer.

Organized September 2, 1890.

TO CONTRIBUTORS AND CORRSEPONDENTS.

All articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from September 12, 1890, to September 29, 1890.

By direction of the Acting Secretary of War, the following changes in the stations of officers of the Medical Department are ordered: Captain William G. Spencer, Assistant-Surgeon, will, upon the abandonment of Fort Bridger, Wyoming (his present station), report in person to the commanding officer of Fort Omaha, Nebraska, for duty at that station, relieving First Lieutenant Alfred E. Bradley, Assistant-Surgeon. Lieutenant Bradley, upon being relieved by Captain Spencer, will report in person to the commanding general, Department of the Platte, for duty as Attending Surgeon at the headquarters of that Department. S. O. 214, par. 16, A. G. O., Washington, D. C., September 12, 1890.

Middleton, Johnson V. D., Major and Surgeon, is relieved from duty at David's Island, New York, and will report in person to the commanding officer, Fort Columbus, New York City, for duty at that station, relieving Major Joseph R. Gibson, Surgeon, and reporting by letter to the commanding general, Division of the Atlantic. Major Gibson, on being relieved by Major Middleton, will report in person to the commanding officer, David's Island, New York, for duty at that station, and by letter to the superintendent of the recruiting service. Par. 1, S. O. 219, A. G. O., Washington, September 18, 1890.

Under the provisions of General Orders No. 43, c. s., Headquarters of the Army, Adjutant-General's Office, the post of Little Rock Barracks, Arkansas, will be abandoned, to take effect not later than October 1, 1890. Captain Paul R. Brown, Assistant-Surgeon, will accompany Company E to Fort Supply, Indian Territory, and there take station until further orders. G. O. 15, Headquarters Department of the Missouri, St. Louis, Mo., August 11, 1890.

The leave of absence for seven days granted Captain Aaron H. Appel, Assistant-Surgeon, by the commanding officer of Fort D. A. Russell, Wyo., is extended twenty-three days. S. O. 70, par 3, Department of the Platte, September 17, 1890.

Leave of absence for one month, to take effect the 1st proximo, is granted Captain C. B. Ewing, Assistant-Surgeon. S. O. 131, par. 5, Department of the Missouri, September 22, 1890.

Leave of absence for twenty days, to take effect when his services can be spared by his post commander, is granted Captain Louis S. Tesson, Assistant-Surgeon, Fort Sidney, Nebraska. S. O. 72, Department of the Platte, Omaha, Neb., September 25, 1890.

Changes in the Medical Corps of the U. S. Navy for the two weeks ending September 20, 1890.

Woolverton, Theoron, Medical Director. Ordered to the U. S. S. "Philadelphia."

Penrose, Thomas N., Medical Inspector. Detached from the U. S. S. "Richmond."

Gardner, J. E., Passed Assistant-Surgeon. Detached from the U. S. F. C. Str. "Albatross."

Drake, N. H., Passed Assistant-Surgeon. Detached from the U. S. C. S. Str. "McArthur," and to the U. S. F. C. Str. "Albatross."

Berryhill, T. A., Passed Assistant-Surgeon. Detached from the Hospital, Mare Island, California, and to the U. S. C. S. Str. "McArthur."

Heffinger, A. C., Passed Assistant-Surgeon. Ordered before Retiring Board, October 1, 1890.

Olcott, F. W., Passed Assistant-Surgeon. Ordered to the U. S. S. "Alert."

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service from August 12, 1890, to September 6, 1890,

Vansant, John, Surgeon. Granted leave of absence for thirty days, to take effect upon return of Assistant-Surgeon J. C. Perry to duty. September 5, 1890.

Wyman, Walter, Surgeon. To proceed to Cape Charles Quarantine Station on special duty. August 25, 1890.

Stoner, Geo. W., Surgeon. Granted leave of absence for four days. August 19, 1890.

Carmichael, D. A., Passed Assistant-Surgeon. Leave of absence extended fifteen days. August 26, 1890.

Ames, R. P. M., Passed Assistant-Surgeon. To proceed to Memphis, Tenn., on temporary duty.

Devan, S. C., Passed Assistant-Surgeon. Leave extended five days, on account of sickness. August 12, 1890.

Williams, L. L., Passed Assistant-Surgeon. Granted leave of absence for thirty days. September 5, 1890.

Goodwin, H. F., Assistant-Surgeon. Granted leave of absence for thirty days. August 21, 1890.

Cobb, J. O., Assistant-Surgeon. To proceed to Marine Hospital, Detroit, Mich., for duty. August 16, 1890.

Hussey, S. H., Assistant-Surgeon. Granted leave of absence for thirty days. August 19, 1890.

Perry, J. C., Assistant-Surgeon. Granted leave of absence for twenty days, to take effect when relieved. September 3, 1890.

Young, G. B., Assistant-Surgeon. To rejoin his station at St. Louis, Mo., when relieved. September 3, 1890.

Appointment.

Rosenau, Milton J., Assistant-Surgeon. Commissioned as an Assistant-Surgeon by the President, August 25, 1890. Ordered to Chicago, Ill., for temporary duty. August 27, 1890.

The Times and Register.

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PAGE

ADDRESS.

CHICAGO ACADEMY OF MEDICINE. By S. V. Clevenger, M.D. - - - - - - - - - 325

ORIGINAL ARTICLES.

SHOULD PASTEUR'S METHOD OF INOCULATION AGAINST THE RISK OF HYDROPHOBIA BE PRACTISED AT A LATE PERIOD AFTER AN INJURY BY A MAD DOG? By Dr. Paul Gibier. - - - - - - - - - - 327

MATERIALISTIC STUDY OF CRIME. By G. Frank Lydston, M.D., Chicago, Ill - - - 329

CHLOROFORM IN OBSTETRICS. By W. R. D. Blackwood, M.D., Philadelphia - - - - 333

THE POLYCLINIC.

MEDICO-CHIRURGICAL HOSPITAL:

For Diarrhœa. *Stubbs* - - - - - - - - 333
For the Paroxysms of Asthma. *Anders* - 333
Sorbefacient in Pleurisy. *Anders* - - - 333
For Cardiac Dropsy. *Gerhard* - - - - - 333
Alterative for Tertiary Syphilis. *Gerhard* 333
For Enlarged Prostate with Cystitis. *Gerhard* - - - - - - - - - - - - - - 333
For Acute Pleurisy. *Waugh* - - - - - 333
For Convulsions in a Chlorotic Woman. *Waugh* - - - - - - - - - - - - - 333

EDITORIALS.

PSYCHIC SEQUELÆ OF TYPHOID FEVER - - 334

PAGE

ANNOTATIONS.

Caries of the Teeth Transmitted by Kissing 335
Piracy on the High Seas - - - - - - - - 335
Stearn's *New Idea* - - - - - - - - - - 335
A New Dodge in Western Mortgages - - - 335
Dr. Stemen's Book on "Railway Surgery." 335
Hospital Facilities - - - - - - - - - - 335

LETTERS TO THE EDITOR.

Chills During Pregnancy. *H. A. S.* - - - 335

BOOK NOTICES.

Wood's Medical and Surgical Monographs - 336
A Treatise on Headache and Neuralgia. *Coveing* - - - - - - - - - - - - - - 336
The Physician's Companion. *Bryce* - - - 336
Recherches Cliniques et Thèrapeutiques sur l'Epilepsie, l'Hysterie, et l'Idiotie. *Bourneville, Sollier, et A. Pilliet* - - - - 336
Familiar Forms of Nervous Disease. *Starr* 33

PAMPHLETS - - - - - - - - - - - - 336

THE MEDICAL DIGEST.

FRENCH NOTES. *Roussel* - - - - - - - - 337
Strychnine as an Antispasmodic. *Benedikt* 337
The Use of Sulfonal in Diabetes Mellitus. *Casarelli* - - - - - - - - - - - - 337
The Use of Valerian. *La Bull. Méd.* - - 337
For Dyspepsia. *Dujardin-Beaumetz* - - 338

PAGE

Treatment of Cancer of the Stomach. *Peter* - - - - - - - - - - - - - - - 338
A Tennessee Doctor's Feat. *The Country Doctor* - - - - - - - - - - - - - - 338
Newspaper Reading. *Russell* - - - - - - 338
Case of Chyluria. *Weiss* - - - - - - - - 338
New Uterine Curette. *Alford* - - - - - - 338
Medico Legal. *Russell* - - - - - - - - - 338
Hay Fever. *Wright* - - - - - - - - - - 339
Obstruction of Iliac Vein. *Internat Jour. Surgery* - - - - - - - - - - - - - - 339
Contagiosity of Tuberculosis. *Treon* - - - 339
Chronic Synovitis. *Gerster* - - - - - - - 339
Electricity in Pelvic Disease. *Sprague* - - 340
Sanitary Teaching. *N. Y. Med Times* - - 340
Prolapse of Funis. *Reed* - - - - - - - - 340
Homonymous Hemiopic Hallucinations. *Peterson* - - - - - - - - - - - - - - 340
Eligible Vehicles for Quinine. *Northwestern Pharmacist* - - - - - - - - - - - - - 341
Nervous Sequelæ of Typhoid Fever. *Transactions, Allegheny Co. Med. Society* - - - 342

MEDICAL NEWS AND MISCELLANY, 342

ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - - 348

NOTES AND ITEMS - - - - - - - iv, xiv

Address.

CHICAGO ACADEMY OF MEDICINE.[1]

By S. V. CLEVENGER, M.D.

AUGUST 2, the incorporation of this Academy was effected; the official papers being sent by the Secretary of State. We meet to-day to proceed with the organization; to frame a constitution and by-laws, and to begin in earnest scientific work, creditable to the institution and its members.

An official physician is accredited with the remark that medicine could only be cultivated in the East, as the West and South were too malarial to permit science to be developed successfully. The only malaria that has, in my experience, interfered with the progress of medicine, is political, and its debilitating influence is universal. Both "malaria" and politics are rampant on parts of the Potomac river.

We have long understood that there was a necessity for a purely medical society in our midst, wherein medical topics alone would occupy the attention of physicians to the exclusion of clique interests, politics, and other distracting, degrading matters, but how to institute such an organization has been, and is, a problem, and while we may congratulate ourselves upon having begun its solution, we must remember that in common with everything human, we are fallible, and we may reach a far different result from the one desired, through an apparently insignificant flaw in the initiatory process.

The avowed object of the academy is "for the encouragement of pure and applied medical science." Inasmuch as political, social and clique intriguery is directly hostile to such encouragement, it will not be possible to accomplish even mediocre scientific work unless these enemies are forbidden entrance. With human nature as it is, resolutions are easier made than kept.

We start out with the hope, the determination to elevate medicine, to make it more scientific, to encourage research, to spread a knowledge of what has been done, and to stimulate workers to renewed and better effort.

Forecasts can only be made upon retrospects; the history of the past alone enables the statesman to advise his nation for the future; even the savage recognizes the advisability of having "old men for counsel and young men for action;" for impetuosity, in howsoever good a cause, may ruin instead of accomplish. It is best, therefore, that we should look at our environment carefully, and, as far as possible, seek out the causes of failure in other organizations.

The scientific medical man is usually poor in purse, and his studies naturally keep him out of money-making avenues, make him poorer, obscure, unknown. He visits his local medical society with the desire to learn and to impart information that has cost him dearly to acquire. He soon realizes that things are far from being what they should be. At annual elections two or three cliques fight for the offices, and do not hesitate to resort to the methods of the ordinary politician to secure such places; wrangles over ethical points, packed meetings to defeat some needed reform in our public hospitals or asylums are occasionally too frequent, and the reading of sensational papers with a full attendance of newspaper reporters, and innumerable other schemes of the kind, prostitute the society into an assemblage of wire pullers, hypocrites and tenth rate medical essayists, crowding the quiet, studious seeker after learning out the door.

All over this great country this is the common experience; resulting in the foisting upon the ignorant public of blatant quacks, and the final extinction of even the desire to make things better, for the battle is to the strong sneak; and the weak, the scientist, goes to the wall. Man was undoubtedly evolved from quadrupedal ancestry, and in varying degrees

[1] At the organization meeting, September 21, 1890.

preserves much inherited ferocity, cunning, treachery, and many good animal traits. A higher and still higher expediency development has finally created a type of man who possesses what a modern school of psychology calls the "secondary ego." History abounds with instances. Patriots, missionaries, philosophers, statesmen, leaders and teachers in innumerable fields who have subordinated their own individual welfare to that of country, religion, enlightenment, and no profession has yielded more of this class than has the medical.

The world has not heard of a tithe of those who have willingly given their labor and literally their lives to their ideals of what would benefit others. Multitudes imbued with this spirit have, in the past, been tortured with all the ingenuity of fanatical hate and ignorance. Thousands of unknown Brunos have been burned alive, more unheard-of Roger Bacons have been silenced in dungeons, and sturdy zealots of all religions, with the kindest intentions for those among whom they worked, fill as many untimely graves as do those slain in wars.

But the combat has not ended. Undoubtedly the world has grown better, mainly because principles for which their originators were martyred, have survived. The ignorant, heedless, almost brainless rabble, bask in a sunlight of civilization made possible by the *fiat lux* of thinkers of past ages. Freedom of thought has almost ceased to be criminal, but its advocate with the secondary ego still pays his penalty. As a rule, he is at least misunderstood, and must not hope to have more than posthumous appreciation.

Let us regard a few instances wherein science is antagonized to-day:

Cushing lived among the Zuñi Indians for the purpose of studying the customs and language of this remnant of a prehistoric American race. Land-grabbing speculators found Cushing opposed to their unjust appropriation of some Zuñi lands, and invoked the aid of powerful politicians to crush him. Fortunately for science, a philanthropic organization, with a glimmering conception of what he was about, came to his aid and saved his Smithsonian employment, and enabled him to continue his work, but not before he had been grossly libeled, and his motives basely misconstrued.

Richard Proctor, the astronomer, was cut off from English governmental assistance through the intriguery of an Astronomer Royal, who was more politician than scientist.

A member of this Academy—Frank S. Billings—whose pathological work is a credit to America, found no support, understanding, or countenance of his bacteriological researches in human disease, such as scarlet fever, etc., owing to universal ignorance; and turned to the study of cattle and swine plagues as affording an easier appreciation of scientific results among agriculturalists; and his earliest successes attracted the attention of official "scientists" (pure politicians) in Washington, and forthwith every possible impediment is put in his way by this guild.

It is not saying too much to state that these political "scientists" would rather see America depopulated by some such scourge as cholera, rather than that it should be prevented by some unofficial means.

Prof. Cope, of the Pennsylvania University, has shown that the official geological surveys are debauched by pseudo scientists, who publish great volumes of falsehoods at the government's expense; and recent exposures have damned official American paleontology for all time in necessitating the rewriting of textbooks that assumed the alleged discoveries as true.

I am personally aware that the United States Land Department is officered by politicians as surveyors-general, whose main function is the securing of spoils, and whose mathematical education is the most rudimentary.

Consequently, our public lands are surveyed by subordinates who are willing to pay the politicians' price, and there is left no incentive to good work, and competent civil engineers seek other fields.

We have recently had some ventilation of the methods of securing census statistics and the attempt to accumulate certain information of a private nature through physicians, such as, at one time in the world's history, was piled up at Rome. Any political party may be depended upon to make oppressive uses of such data.

A politically-supervised inquiry into health statistics would be comical if it were not for the menace to the private liberties of citizens. It could be, and would be, made the club for infinite varieties of blackmailing.

That the spoils system in politics has degraded every branch of governmental service there is ample proof, but in one particular its infamies are peculiarly horrible:

Some State charitable institutions are well managed, owing to the personal excellence of superintendents; but this is purely accidental, and in spite of the system. Where a hospital, almshouse, or insane asylum is controlled by aldermen or county commissioners, invariably there is barbarous management, for the spoils party system insures the selection of such officials from the truly criminal classes, and these select subordinates from their companions of a still lower stripe.

Physicians and surgeons in public institutions are regarded by these hoodlums as a sort of necessary evil, and they naturally try to minimize the hostilities between decent medicine and politics by securing as degraded a set of medical men as possible.

Occasionally some skilled student, anxious for the opportunities these public hospitals afford, debases himself by association with officials who can secure places. The result is damaging to the doctor, because good work is simply next to impossible under such auspices. Our Cook County Hospital and Asylum are well enough known to you as undesirable vantage ground for conscientious work.

Occasionally some one, with a view of improving the matter, will undertake to bring the malodorous affairs of our charitable institutions to the attention of a medical society, whereupon the political doctors rush to the rescue, pack the meetings, whitewash, blackmail, break up investigations, and otherwise pollute the society proceedings, to enable a continuance of medical politics, brutal treatment of the insane and sick, and the appointment to positions of ballot-box stuffers and ward "heelers," all to please their masters, the criminals who keep them in office.

This is not a fancy picture, gentlemen, drawn from imagination; it is not only founded on fact, but it is fact.

Shall certain well-known persons who have been guilty of such things gain admittance to the Academy? Can we regard them as suitable accessions from any standpoint? Shall our society suffer the fate of others, and be debased to similar ends?

Medicine and politics make a monstrous, a foul, combination; and are as incompatible as fire and water. The one gains everything by devotion to truth, seeks to elevate everything; the other is the offspring of the father of lies himself, and damns all it touches.

Are we medical men, seeking the alleviation of the ailments of our kind, or harpies, hypocrites, to prey thereon?

It is doubtless true that every medical man is driven to adopt business methods more or less repugnant to his professional instincts, and such practices we need not criticize; but, in view of the incessant thrusting forward of such methods in other medical societies, with the result of debasing their proceedings to catch-penny mountebank shows, it behooves us to jealously guard our portals against encroachments of this business spirit, that elbows away the possibility of concentrating our attention upon the real purposes of our organization.

A great deal is said, and with much truth, about the ignorance and dishonesty of the laity forcing the physician into charlatanism. If money-making is the sole object of the practitioner, then there would be apparent propriety in meeting ignorance and dishonesty upon its own grounds, with its own methods; but let us hope that those who seek entrance to this Academy are prompted by other than mere business reasons. It may be a hopeless task to instruct the masses out of their fetichistic ideas of medicine, and centuries hence new forms of quackery may arise, plundering alike the sick and the learned physician, who has the missionary spirit, the desire to be able to help, coupled with the ability to do so. But, had our Galens, Hunters, Graves, Abernethys, Rokitanskys, Trousseaus, *et id*, of the past, living in far gloomier periods, faltered in their endeavors over such considerations, where would we be to-day?

Though, as Spencer says, what we may accomplish for reform will always be out of proportion to our efforts—the little we accomplish will endure.

Education of the people has been accomplished step by step, so that the world is really better to day than it was; and this education, whatever its shortcomings may be, has been brought about through the singleness of purpose, sincerity and industry of self-sacrificing thinkers.

We, as physicians, as well as human beings, owe them a great debt of gratitude, and they would ask no better recompense than that we carried on the work which they began.

We desire to gather into our organization earnest men who can, and will, by their acts make for our body an enviable reputation, so that it will be justly regarded a great honor to be a fellow of the Academy. While, as Dr. Eccles said in a recent paper in the *Popular Science Monthly*, "medicine attracts to its study the brightest minds and the best intentioned," we must admit that in our ranks there is not only evil coupled with dullness, but here and there are brilliant men who are capable of every duplicity; some there are who cannot help attempting to make tools of everybody and thing; but such persons' habits of thought are hostile to science, and they are not wanted among us. He who practises lies thinks lies, and is incapable of logical reasoning, except as regards his immediate lowest interests.

Diplomacy may answer among politicians, but its effects are damnable so far as correct reasoning is concerned, and such low traits as those of the average politician react upon the possessor, making him a revert, a natural wolf, fox, serpent, or worse.

Pardon my dwelling upon such topics; but my justifications therefor are through experience. The political spirit blights every effort of the well intended to make anything better. Its cursed influence intrudes into churches, societies, mercantile life—everywhere; and it will undoubtedly make many efforts to effect an entrance here.

We have in our midst those who pass current with the laity as honorable, skilful physicians, some of whom, to "get on in the world," have attempted to destroy the reputation of their confreres in the most wanton and unjustifiable manner by systematic scheming. There are others of this ilk, who, leagued with the vilest politicians of our corrupt local government, do their bidding, even to frustrating any attempt of medical or other associations to rescue the insane and sick from robbery and brutal treatment in our public hospitals.

In framing our constitution, I would advise the utmost simplicity and the fewest possible sections. Everything cannot be foreseen and provided for; and as the most astute cannot invent a scheme for good that knaves cannot beat, the decent life of our Academy will depend upon its personnel, and the interpretation it will give to the very plain words "Pure and Applied Medical Science," and that all other matters are foreign. We should regard personalities, intriguery, hair-splitting ethical considerations, politics, and cliqueism as high treason, and full powers should be given to an executive committee, selected for its integrity, to act promptly upon all attempts to prostitute the aims of the Academy, with the right of appeal from such committee to the entire body of fellows.

The originators of this Academy have set their hearts upon its having a glorious, useful and creditable future, and to secure it we must be on the alert against perverting influences.

However much it may "pay" others to subordinate medicine wholly to money-making, let medical topics be the sole consideration here. While those who "serve at the altar must live by the altar," the priest would not think of eating up the entire burnt sacrifice; so the physician, while dependent upon his fees for a living, should not make fee-getting his only aim, even though the most popular practitioners are those who do the people the most harm; for while wrong will always usurp the appearance of right, there is some justification for the belief that the latter triumphs in the end.

In the words ascribed to Wm. Lloyd Garrison (though I am not sure that he is their originator):

"Right forever on the scaffold,
Wrong forever on the throne,
But that scaffold sways the future,
And beyond the dim unknown
Standeth God, within the shadow,
Keeping watch above His own."

Original Articles.

SHOULD PASTEUR'S METHOD OF INOCULATION AGAINST THE RISK OF HYDROPHOBIA BE PRACTISED AT A LATE PERIOD AFTER AN INJURY BY A MAD DOG?[1]

By DR. PAUL GIBIER,
Director of the Pasteur Institute of New York.

THE value of inoculations according to the Pasteur method, as a preventive of hydrophobia, being no longer a matter of serious contest, one question remains to be solved: How long after the bite of a mad dog can the inoculations be beneficial?

Evidently, the sooner a person is submitted to the preventive treatment after having been bitten, the

[1] Read before the International Medical Congress of Berlin, 1890.

better it is; but suppose a man was bitten several months, or even a year, ago, are we in a position to assert that it would be of service to subject him to the inoculations?

Relying upon a small number of observations that I lately made, and at the same time bearing in mind that hydrophobia may be developed a year or more after the introduction of the virus through the bite, I believe that the advantages of preventive inoculations to persons who are in this predicament cannot be denied.

Following are a few observations taken from the records of the New York Pasteur Institute, which would seem to show that even at the first apparition of the prodromata of the disease, it is still possible, several months after the bite, to stop the invasion of the germs along the course of those nervous fibers which start from the place of the wound to the nerve centers, and, so to speak, harden the latter against the hydrophobic microbes.

The first case in which a long delay had elapsed between the bite and the moment at which the patient came to be treated was that of a physician, of Carlinville, Ill.,—Dr. C. J. C. F. He had been bitten five months previously, and felt some peculiar sensations at the seat of the scar. These occurred in the right leg, and from this point up along the limb. These sensations became better marked, and proved to be painful enough to awaken the patient in the middle of the night.

The same dog—which presented the ordinary signs of hydrophobia—bit, one day after, Dr. F.'s daughter upon her right side, and inflicted a very severe wound. At the same time that her father felt the signs just described, the young girl felt a disagreeable itching on the spot of the cicatrix of her wound, and was brought by her father to the Institute for treatment. Thus, five months and a half after the bite, both were regularly treated for fifteen days, and received an intensive form of treatment, which ended on the 1st of May last.

One month after, June 2, Dr. F. wrote me: "My daughter and I are getting along nicely; the pains and other peculiar sensations I complained of in my leg are gone. My daughter complains no more, so I think the cure is complete." And two months after the end of the treatment Dr. F. wrote me again that all was going on favorably.

In these two instances, and especially in Dr. F.'s case, if reliance is placed upon what we know of the prodromata of hydrophobia, the symptoms observed would seem to indicate a foreshadowing of others, more serious, and thought to be so by the patient in the light of his professional experience. I think that it is not unreasonable to believe that without the anti-hydrophobic injections the case might have proved unfavorable.

The results in these cases encouraged me to pursue the Pasteur method in other instances, and, so far, I have not had any reason to regret my course.

In a third case, a man from Walleston, Mass., came, April 18, to seek my advice. He had been bitten four months before in the hand, by his own dog; fifteen minutes after, his wounds were washed with a strong solution of carbolic acid.

The day following, the dog bit a companion, who died with the symptoms of hydrophobia. On the 12th of March the dog was killed. I treated the patient from April 18 to May 2. To-day he is well.

A fourth and fifth case refer to two patients who were bitten—the one one month, and the other nearly two months, before. Both are doing well, after a lapse of more than forty days.

A sixth case refers to a boy bitten, fifteen days previously, in the hand. Since the treatment, which ended on the 28th of June, the boy has remained perfectly free from all symptoms of hydrophobic poisoning.

The seventh case is that of a man who came from the province of Ontario, Canada, and who had been bitten thirty-five days before any treatment was commenced. This man was decidedly prostrated when he came; his wounds were severe in both hands; they had not been cauterized. Three animals—two pigs and a cow—bitten by the same dog, died with hydrophobia a few days before the patient presented himself for treatment. Since the end of June he has remained well.

The eighth case is almost similar to the latter, and occurred at the same time. A boy, twelve years of age, came three weeks after having been bitten. A dog bitten by the same animal died with symptoms of hydrophobia just before the patient left his home to come to the Institute. So far he is doing well.

The ninth case is interesting, although the delay was but eleven days between the bite and the first inoculation. A young girl felt a tingling which she described as "sparks" in the tips of her fingers and in the forearm—the seat of the bite. There was free hemorrhage from the wound, and it had not been cauterized. The dog displayed marked symptoms of hydrophobia before dying.

The subject of the tenth observation was a man from Brunswick, Maine, inoculated for the first time seven weeks after a severe bite, inflicted by a dog who had bitten two other men; one of them died thirty-two days afterward with the ordinary symptoms of rabies. The treatment ended on the 12th of July.

Two other patients are still under observation: one, an old man, bitten ten months previously by his own dog, who died a few days after with symptoms of hydrophobia. The little finger, upon which the bite had been inflicted, was neither washed nor cauterized. From the seat of the wound extending to the elbow, the patient felt acute pains, which became worse a few days before he submitted to treatment. Under the influence of the preventive injections, the pains disappeared almost entirely on or about the tenth day.

Finally, another patient, who presents also some interest, is a young lady, twenty-four years of age, bitten thirty-two days before she came to the Institute. For one week she felt worried, without cause, and experienced some pains, extending from the bitten finger to the elbow. She complained, also, of peculiar and rather painful burning sensations in her throat and in her tongue. After six days' treatment she felt better; on the tenth day she was still better, and the painful sensation of the arm appeared only now and then, but greatly lessened in intensity. At the end of the treatment the pains disappeared. The patient had been inoculated three times daily during three consecutive days, and on the fourth day was subjected to a most virulent injection. I believe that the progressive disappearance of the pains must dispel any idea that it was due to mere suggestion.

My purpose is not to advance any statement that there is always time to treat successfully a person who is threatened with hydrophobia after a certain period has elapsed; but I believe that the cases that I have heretofore related, especially if they all prove ultimately successful, may sustain my views; that is, if the inoculations can be performed at least one month before the period at which the invasion of the nerve centers, by the germs, should have occurred,

the probabilities are that a fatal end of the hydrophobic infection will be prevented.

NOTE.—After the reading of this communication a discussion took place, not about the value of the treatment, for that is admitted by every physician who has any experience of the matter, but about the details and modifications applied to the method of inoculations.

Prof. Babés, of Bucharest, recorded several observations and experiments which prove beyond all contest the thorough efficacy of the Pasteur method of treatment against hydrophobia. Among these observations he related a very striking one: In the environs of Bucharest a mad wolf bit thirteen persons and thirty animals—oxes, horses, pigs dogs. The thirty animals died of hydrophobia; a man who neglected to go to the Pasteur Institute of Bucharest to be treated died with the same symptoms; another one died from the wounds inflicted by the wolf; but the eleven persons who received the Pasteur inoculations are still alive, after nearly two years. Those who pretend not to be convinced by such examples, which have been multiplied a great many times, would probably be quite anxious to receive the treatment if they were themselves in danger of contracting the dreadful disease.

MATERIALISTIC STUDY OF CRIME.[1]

BY G. FRANK LYDSTON, M.D.,
CHICAGO, ILL.

SOME years ago, I published in the *Chicago Medical Journal and Examiner* a contribution, entitled: The Pathological Causes of Vice. This was based upon observations of the criminal class during my services as surgeon at the Blackwell's Island Penitentiary, New York, and in other metropolitan institutions. This article, while well received by the majority of my friends in the profession, invoked the wrath of a few orthodox individuals to such an extent that I was stimulated to further discussion and study of the subject. Fanatical opposition is sometimes an excellent evidence that our work is based upon sound principles. And when some of my friends stopped abusing the devil and jumped on to me, I knew I was right.

DISTINCTION WITHOUT A DIFFERENCE, PERHAPS.

In announcing myself as a materialist, as far as the study of vice is concerned, I trust that my position may not be misinterpreted, for it is certainly not my intention to detract from the importance of the moral law in its relation to the production and repression of vice, or to lessen the efforts of the moralist in his attempts to oppose "goodness" to "badness." It is the function of the materialist to liberalize existing theories regarding the causation and repression of vice, and to reduce the subject to a scientific, and, as far as possible, evolutionary basis.

The study of the causes and prevention of vice and crime in their various phases is one of the most important and practical questions of the age. The varying forms of violation of physical, social, statutory, and moral law, which are included under the heads of *vice* and *crime*, are the outcome of certain circumstances of environment and laws of progression which are, and have ever been, present and operable in society; in all social systems, whether of high or low degree of development, and in every grade of civilization. It is obvious therefore, that the philosophical study of vice is a social necessity, quite as much so as is the study of morbid conditions of our physical bodies, resulting from aberrations of physiological laws. Indeed, the two studies are more or less interdependent, and therefore demand the interest of the physician. In my opinion, it is to the physician, and not to the moralist or law-maker, that the society of the future is to look for measures of repression, or the better correction and prevention of vice and crime. Our knowledge of the subject is at the present time decidedly unsatisfactory and crude, from a philosophical stand-point, chiefly because the science of statistics is yet in its infancy, and, to a great extent, because the moralist has acted as an obstructionist and has impeded the progress of those who have undertaken to reduce the question to a purely physio philosophical basis.

I will, at this point, advance the proposition, that the actions of men are governed entirely by the state of society in which they occur. Crimes are the result of precedent circumstances; they are the pictured and tangible results of occult influences, past, present and to come, *i. e.*, they are the result of an all-pervading and everlasting law. Criminal acts are not isolated experiences with no necessary precedent or future repetitions. The doctrine of free will, *i. e.*, of individual responsibility, is so simple and appeals so strongly to the self-esteem and sentiment of the masses that it is accepted by the majority of individuals with a faith and simplicity that prevails on no other question of corresponding magnitude. How simple and satisfactory it is to us to say that our fellow-man has committed a crime, because, forsooth, he is less holy than we! This pharisaical sophistry is but the outcome of human egotism, and as long as it prevails and controls our social, moral and legal efforts at repression, so long will our criminal classes flourish and multiply. Indeed, "he who does not advance goes backward," and our social system is apt to grow worse instead of better.

It is hardly necessary to go into details regarding the superficiality of the prevalent methods of study and repression of crime. It is so apparent that it must strike the most casual observer. Much has been done in the way of moral and physical persuasion, but very little, indeed, in the direction of philosophical methods of the study and correction of causes. As civilization has advanced and theology has become enlightened in its theory and methods, a corresponding improvement in the moral tone of the social body should naturally be expected. Unfortunately, however, there has been no improvement—as far as statistics serve to testify—sufficient to encourage the efforts of the moralist. The futility of moral measures, as demonstrated by past experience, is explicable only upon the ground that there is something more than free will to account for criminal acts. Free will is operable only in the case of individuals, and moral persuasion affects only the individual and, incidentally, the circumstances which sway the volition of the criminal; it accomplishes little or nothing in the correction of the general law underlying the production of the criminal class. By analogical reasoning, the futility of moral means of repression may be readily shown. We will suppose, for example, that a certain portion of the human body is affected by disease, dependent, to a greater or less extent, upon a depraved constitutional condition. Obviously, measures of local correction, *i. e.*, correction of the local depravity of tissue, although useful to a certain extent, fail of their object, unless the general and constitutional influences which tend to enhance the local trouble are recognized and corrected. The individual is but an

[1] Read before the Milwaukee Clinical Club, July 8, 1890, by invitation.

atom of the social fabric; when he is depraved, logic requires a search for, and, if found, the correction of, the morbid general or constitutional influences pervading the social body, which bring about perversion of thought or action in the individual. Moral persuasion is but a minor consideration; the law cannot cope with the question, and punishment is futile, because these corrective influences operate upon the isolated integer and not upon the law of causation. Admitting that certain criminals are so by reason of structural peculiarities, the inefficacy of preaching is at once explicable.

That criminality is the result of certain causal influences, operating by a fixed law, has been recognized by several eminent historical and statistical authorities. Buckle and Quetelet have advanced some striking arguments bearing upon the influences modifying the moral conduct of the human race. It would appear that many of the actions of mankind which we are prone to attribute to free will and independent action upon the part of the individual, are really the result of a fixed and immutable law controlling the moral world, which is almost as definite and arbitrary as the laws controlling the physical world. As compared with this law, the independence, *i. e.*, free will of the individual and the local circumstances of environment, in operation at the time of the apparently volitionary action, are of but little moment, and are but accidents in the chain of events. It has been shown, by the statistics of Great Britain and France, that there is a constant proportion maintained in the ratio of criminal acts to the number of population in those countries.

Rawson[1] says: "No greater proof can be given of the possibility of arriving at certain constants with regard to crime than the fact that, the greatest variation in the proportion of any class of criminals at the same period of life during a period of three years, has not exceeded a half of one per cent."

Quetelet[2] says: "In everything which concerns crime the same numbers recur with a constancy which cannot be mistaken. This is the case even with those crimes which seem quite independent of human foresight—such, for instance, as murders, which are generally committed after quarrels, arising from circumstances apparently casual. Nevertheless we know from experience that every year there takes place not only the same proportionate number of murders, but that even the very instruments with which they are committed are employed in the same proportion."[3]

Buckle[4] says: "Suicide is merely a production of the general condition of society, and the individual's volition only carries into effect what is the necessary consequences of preceding circumstances. In a given state of society a certain number of persons must put an end to their own lives. This is the general law, and the special question as to who shall commit the crime depends of course upon special laws which, however, in their total action, must obey the larger social law to which they are all subordinate. The power of the larger law is so irresistible that neither the love of life, nor the fear of another world can avail anything toward even checking its operations."

Buckle further shows by statistics, that notwithstanding the varying causes of suicide which exist in society, such as political excitement, want, mercantile crises, disappointments in love, depression induced by disease, etc., there has been in London a very constant average of suicides, the average having been during five years 240 per year. The variation in the number was not very great in proportion to the number of population, running from 213 to 266, the latter number being attained in the year 1846, which was distinguished by the great railway panic. At this time the ratio of suicides might naturally be expected to be extremely high, but as a matter of fact, it was less than one-half per cent. higher than the preceding year. Mechanical laws may be disturbed by accidental circumstances, yet they prevail; so it is with the moral law.

As showing how the regularity in the course of events may manifest itself in the most trifling details of every-day life, one of Buckle's statements is very interesting. It is not infrequent for individuals through carlessness to drop undirected letters in the mail box. Such an oversight might naturally be attributed to individual carelessness, but it is shown by statistics that in London and Paris, due allowance being made for varying circumstances, increased population, etc., that there is practically the same number of undirected letters found in the mails every year.

It is generally supposed that in the matter of matrimony the individual is governed entirely by free will. Statistics prove that there is a constant variation in the proportion of marriages corresponding to the rise or fall of the price of food products. So it may be seen that, as far as statistical evidence goes, we may well believe that "there is a Divinity that shapes our ends, rough hew them as we may."

Leaving out of the question a general law influencing society and determining with unwavering fidelity the occurrence of certain acts which we term criminal and vicious, it is unquestionably true that there are certain special causes in operation. The influence of heredity is so well recognized that any remarks in that connection may be considered trite. Yet it would be impossible to do the subject justice without an allusion to it. It is not always an easy matter to isolate hereditary influences from others of a special character which operate in the development of vice and criminality; but there are certain typical cases upon record which conclusively prove that hereditary impulses to breaches of social ethics are a very important consideration in the study of the causes and prevention of vice. There is frequently an intimate association between hereditary defects of a physical character and those manifestations of heredity which result in crime. In many instances a special act of criminality can be directly traced to certain hereditary, or, perhaps, congenital physical aberrations.

The powerful influence of heredity in the production of vice and crime is not so manifest in this country as in some of the older countries of the world. Its influence is not so dominant in countries in which a Republican form of government exists as in those in which an effete monarchial and aristocratic system of control prevails. The older and larger the city the more pronounced its viciousness. Thus it is to London we must look for the very refinements of vice

[1] "Inquiry into the Statistics of Crime in England and Wales."

[2] "Sur l'Homme," Paris, 1835.

[3] "During twenty' years study of the statistics of crimes in France, the number of accused persons registered scarcely varies at any age from year to year, comparing the proportionate percentage at each age with the totals. The number of persons accused in all France from 1826 to 1844 was about equal to the deaths of males registered in Paris; but, singularly enough, the results of the former are more regular than the latter, notwithstanding the accidental causes which might affect them; notwithstanding even a revolution in Paris which convulsed society and brought on a new dynasty." (Brown on the Uniform Action of the Human Will.)

[4] "History of Civilization in Endland."

and crime. The exposé of the hideous orgies of Cavendish Square followed very closely upon those sensational murders of women which attracted the attention of the whole world to the great Metropolis.

In Dr. Ireland's book, "A Blot on the Brain," we have evidence collated which is sufficient to convince any thinking man that the aristocracy of the Old World is hereditarily rotten to the core. You are familiar with his unmerciful handling of the House of the Romanoff's, which is so eminently true that the sale of the book has been prohibited throughout the Russian domain. I do not claim that the aristocracy *per se* are more liable to viciousness than any other class of people similarily situated. Unbridled license, idleness, and the possession of unlimited resources, when taken in connection with the circumstance of consanguinity or inbreeding, are enough to account for the corruption of the dominant element in European society. That actual physical aberrations or atypical conformations of structure must bear a certain responsibility, for the development of the criminal class is amply shown by the researches of Benedict and Osler. These experimenters have shown quite a constant relation between atypical cerebral development and criminality. The assertion that criminals and a certain class of insane exhibit a defective or aberrant brain development, has been the conclusion of such students of the subject as Corre, Lombroso, Mills, Rouselmarro, Pavlosky, Varaglin, Tenchini, and Badik. To be sure we must take into consideration the näive declaration of Benedict that "certain of these cases were collected as the result of *a priori* conviction that the criminal is an individual having the same relation to crime as his next blood kin, the epileptic, and his cousin, the idiot, have to their common encephalo-pathic condition.

Hackneyed as the illustration may be, there is as yet no better exemplification of the effects of heredity than that embraced in the wonderful tables and statistics of the immortal Richard Dugdale in his history of the "Jukes." In these tables the histories of 1,200 descendants of one Ada Juke—more popularly known as "Margaret, the Mother of Criminals"—are traced, and of the total number nearly 1,000 were shown to have been either criminals, drunkards, or paupers.

Ribot, in his famous work on Heredity, has shown remarkable examples of an inherited predilection, not only for crime in general, but for certain forms of crime and vicious impulse. But I perceive that my paper is spinning out to an unwarrantable length, and I will, therefore, present as briefly as possible those causes which students of this important social problem should be always ready to recognize.

1. The first and most potent cause is that occult, all-pervading and remorseless law which pervades all social systems. To this law I would apply the term *predestination* were it not, in my opinion, too arbitrary an expression, and likely to lay me liable to the impeachment of illiberality. This cause has already been sufficiently expatiated upon. There appears to be an occult influence of an epidemic character affecting chiefly the crimes of murder and suicide. This is so trite that I would scarcely mention it, but for my desire for completeness of classification. There has recently occurred in rapid succession in numerous large cities in this country a considerable number of cases of wife murder, followed by suicide. These cases are an illustration of a peculiar kind of homicidal mania of an apparently epidemic character, which occurs now and then. It is my opinion—and in this I am not alone—that the public press fosters this epidemic influence by its blood-curdling accounts of such cases. It is a question in my mind whether the complaisant manner in which the *minutiæ* of robberies and defalcations are recited by the newspapers, has not its influence in producing crime.

2. Hereditary impulses, independent of perceptible or obscure physical aberrations. It is possible that habit, persisted in through succeeding generations, may result in a faulty power of reasoning, which, although not characterized by variations in physical conformation, may be transmitted to posterity through countless generations.

3. Defective physique and imperfectly developed intellect, hereditary or congenital. These cases are of the plainest type and are admitted by all.

4. Acquired disease, lessening the moral sense and will power. Instances of this kind are familiar to all of us. Vicious or criminal acts, performed under the influence of acute delirium, or mania, due to various diseases, are frequently met with.

5. Injuries to the brain. This cause of crime and vice is a very familiar one, especially to the alienist and neurologist.

6. Alcoholism. To this cause there are many who—in what I consider illiberality—attribute nearly, if not quite, all cases of criminality. There is no question but that alcoholism is a potent cause of crime, but there are thousands of cases of criminal acts which are apparently traceable to it, in which the influence of alcohol is secondary to physical causes, inherent in the individual. There were certain interesting facts brought out by the recent Congress of Alcoholism, in Paris, which illustrate the importance of the study of the relation of alcoholism to crime. It was shown, for example, that there was quite a constant relation between the amount of alcohol consumed in various social systems and the amount of crime. It is my impression, however, from a study of the statistics developed by this congress, that the survey of the field of criminality had been rather a narrow one, and that certain collateral elements in the causation of crime had failed to receive their due meed of consideration. Some of the studies of the congress were rather interesting in this connection. For example, it was shown that in Berne, where there are only four saloons per thousand of inhabitants, criminality was more prevalent than in Zurich, where the proportion is twelve to the thousand.

7. Vicious example and surroundings. Environment. This involves the question of "criminal contagion," which is very important in connection with our own defective methods of correction. The herding together of all grades of criminals is one of the most pernicious systems that could be devised. In my own city of Chicago, for example, there is no reformatory for young lads, and they are therefore sent to the Bridewell, where they inevitably become contaminated by older criminals. This proceeding is as rational as would be the sending of a case of simple sore throat to a diphtheria hospital.

8. Defective education and consequent imperfect mental discipline. This is a question in which the progressive physician and the philanthropic politician, if such a *rara avis* exists, should be a unit.

9. (a) Perverted conception of law, statutory, moral and divine; (b) unjust dispensation and maladministration of law. This cause is of more importance than is usually assigned to it. What may be termed the inequalities of justice have been responsible for fully as many cases of confirmed criminality as almost any other cause which could be mentioned.

Bishop Robertson once said: "Justice is a pair of huge iron jaws which open and close with mechanical regularity. Nearly every man at some time in his life comes within the legitimate reach of these jaws. Many escape just at the nick of time because they do not happen to be within reach when the jaws are opening and closing, while others, less guilty perhaps, but also less fortunate, are caught."

A very interesting story is told in this connection, of two school boys who were stealing apples together. They were detected and pursued. One was caught, while the other escaped. The one who was captured was sent to jail and thrown among criminals from whom he acquired a moral contagion which infected his after life. After his release, those acts which before his incarceration had been merely boyish pranks, assumed a criminal character, and he became a confirmed criminal. The boy who escaped remained in school and doubtless kept up his mischievous pranks during the rest of his school-days. He afterward studied law, became a lawyer, and eventually was elected a judge. Twenty-five years after the apple-stealing episode, the judge sentenced his former comrade to death for murder.

10. Alleged detective science or man-hunting. The manner in which the ambitious modern would-be detective pursues discharged criminals is an apt illustration of "man's inhumanity to man." How frequently it transpires that a criminal leaves the prison gates with the resolve to lead an honest life; he secures a position, but the eye of the law is still upon him, and some human tiger in the guise of a detective speedily warns his employer that he is harboring a jail bird. Discharge follows, and perhaps another place is secured with the same result, and so the relentless pursuit goes on and on until the jail bird finds every avenue closed to him except the road back into the jail. Why have we not a Hugo among us to describe the persecution of our many Valjeans by aspiring and relentless Javerts? It is unquestionably true that the persecution of ex-convicts by our would-be Vidocqs does much to keep up the census of our jails. A want of faith in reformation, on the part of those who should hold out a helping hand to the criminal, drives many a man back to crime.

11. Physical, moral, social, and matrimonial mésalliances. This involves the question of consanguinity. It is questionable whether we as physicians will ever succeed in accomplishing much in the correction of this particular cause. A sanitary marriage is the dream of the idealist, but if we shoot at the moon, we may make a pretty satisfactory target, though we fall far short of the mark. Gross physical infirmities and certain pronounced mental defects, at least can be taken into consideration in the question of matrimony. Proper selection in marriage means both physical and mental improvement in the race. The human animal is certainly entitled to some of the benefits to be derived from the science of breeding. Authorities are somewhat divided upon the question of consanguinity, yet there are few who are not willing to admit the necessity of careful and ripe judgment in considering the question of the marriage of blood relations.

12. The intermarriage of criminals. As much has been said upon this question, it is doubtful whether the correction of this influence by the State is possible. If the privilege of matrimony be denied to the criminal class, illegitimate relations are apt to be established with an even more deplorable result. Such people are not apt to stand on ceremony, and the correction of this cause is therefore more theoretical than practical.

13. Corruption in politics. Under this head I will embrace political encouragement of ruffianism and protection for criminals. A very sad case recently occurred in Chicago, of a prominent lawyer who became insane as a consequence of a blow upon the head, inflicted by an alleged respectable citizen during a quarrel of a political character. As a corollary of political corruption, we have an imperfect and corrupt police system, the keystone of which is the aphorism that it takes a rascal to catch a rascal. This cause of criminality must prevail as long as the credentials of an alderman are the qualities of a deep, hard drinker and a good rough-and-tumble fighter.

14. Niggardly and misapplied charity, with consequent failure to relieve actual want. As is well known, starvation and crime are first cousins. Here is the golden opportunity for the philanthopist!

15. The importation of the criminal refuse of the Old World, and, what is worse, individuals with fanatical, social, political or religious views. The important question of immigration demands more attention than is usually accorded it. It is really one of the most vital issues of the day. The instance has been known, and quite recently, that nearly ten thousand immigrants were landed at Castle Garden alone, to say nothing of other ports of entry. Were it established that all of these people are respectable and producing elements in American society—as a large proportion undoubtedly are—they would certainly be a very valuable addition to our population.[1] There is something striking, however, in the fact that, although the foreign-born citizens constitute but one-eighth of the total population of the country, they furnish one-third of our criminals, one-third of our paupers, and one-third of our insane. In short, the character of our immigrants is so polluted by the wholesale exportation by the Old World, of the insane, criminal, and pauper class, that every one thousand immigrants furnish twenty per cent. more of the inmates for our jails, asylums and alms-houses than the same number of American born. This is a cause which must be grappled with by the statesman and not by the philanthropist. Should politics become honest, or approximately so, there is hope for removing this evil, but under the present system of political quackery a remedy for this cause is like some of the others I have mentioned, more theoretical than practical.

In this array of generalities and necessarily imperfect classification of the causes of vice and criminality, it is obviously impossible for me to entirely cover the field, but if I have succeeded in presenting in an intelligible manner ideas which will serve as an incentive for the study of the subject on the part of my hearers, I shall have accomplished my object. As Dumas once said of mendicity, "criminality is an organized body, a kind of association of those who have not, against those who have." It is high time that the respectable elements of society should begin the study of the causes and prevention of crime, in a philosophical manner. If this be done, and the philosopher, preacher, statesman, jurist and physician, put their shoulders to the wheel and work in unison, the time may come when the criminal class may not be so pronounced a curse in our social system, as it is to-day.

[1] It will of course be understood that there is no prejudice involved in my remarks, which are directed at the importation of tares with the wheat.

CHLOROFORM IN OBSTETRICS.

By W. R. D. BLACKWOOD, M.D.,
PHILADELPHIA.

ANYTHING which tends to the comfort or safety of mankind (and this applies with redoubled force to the woman in labor), is to be welcomed; it is a good thing. Dr. Baldwin has given to the profession, in his interesting paper of September 27 in THE TIMES AND REGISTER, some cogent reasons why, in his opinion, chloroform is demanded in all cases of confinement; this we may safely assume, because he makes it the second item in his triad. He refers to the usual objections which have been urged against the use of this anæsthetic in labor, and gives the experience of himself and others to show that there is no real reason why chloroform is unsafe or to be avoided. He adduces the fact (or what he believes to be a fact), that the circular fibres of the cervix and the muscles of the perineum are highly relaxed by the agent in question, and this he takes as a good thing: yes, I know, that is so! But chloroform exercises no selective action on particular muscles; *all* the muscles of the body are relaxed equally, according to the depth of anæsthesia—the muscles of the uterine body just as much as those of the cervix. This I hold from my own observation. In so far as this goes, so far there is loss of expulsive force. He says that he never had a case of post-partum hemorrhage, neither did Dr. Fordyce Barker (under chloroform). In my own practice during the years when I worked hard at obstetrics for myself and my preceptor, I had charge altogether of a little more than thirty-two hundred labors, and, although in none of them did I encounter the dreadful complications which appal the neophyte when he reads about them in the text-books and in periodical literature, I had, toward the end of the row, several cases of flooding. In each instance of this bad business *anæsthesia had been practised!* Dr. Baldwin says that injury to the child has never been reported as the result of using anæsthetics, but I have more than once seen reports the object of which was to check the misuse of chloroform for the very reason in question, viz., its possible bad effects on the infant when prolonged administration was desirable for any reason; in short, the last of my confinements shows this thing to be a fact. The child was born after the woman (a doctor's wife) had been semi-unconscious all day from anæsthesia under chloroform, owing to terrible convulsions; the child was unusually active prior to the use of the drug, but it took hard work to revive it after its birth, and those present will bear me out in the statement that the difficulty was owing to the cause named.

For some years, my confreres in this end of town were bothered by the antics of a crank who educated the community through treatises stuck under their doors, depicting the wonderful journeys which thousands of women took with him to picnics of varied nature (the aforesaid tramps happening through the agency of a combined chloroform mixture of his "own make") to the belief that it was criminal to have any other doctor than himself, unless his patent free-pass inhalation was employed to secure a trip of the nature depicted, and since the people got "onto him" and his dodges, it has been found by his successors that hemorrhage was a quite common occurrence in his practice. That chloroform has inherent dangers, I don't believe. I gave it in many hundred cases during the war, and now and then since that time, and in no instance have I ever seen the slightest symptom which would lead me to refuse its aid in my own case were I to undergo an operation requiring anæsthesia; but I know that deaths have occurred, in some instances anyhow, and chloroform was blamed for them, so, as the paper which I now refer to is calculated to invite indiscriminate use of this powerful agent in labor, I think the brakes should be either put on a little, or held in readiness, for that this habitual use of chloroform in the way suggested would be a boon to women, without any possible drawback, I seriously doubt.

246 North Twentieth street.

The Polyclinic.

MEDICO-CHIRURGICAL COLLEGE.

FOR DIARRHŒA:

℞.—Tinct. opii camph.,
Tinct. lavandulæ comp.....āā ℥j.
Sp. vini gall..... ℥ij.
M.—S. ℥ss every three hours.

—*Stubbs.*

FOR THE PAROXYSMS OF ASTHMA:

℞.—Potassii iodid..... ʒijss.
Tinct. lobeliæ ..... ʒiv, ♏x.
Syr. sarsaparillæ comp. ...q. s., ad ℥ij.
M.—S. ʒj every two hours till relieved.

—*Anders.*

SORBEFACIENT IN PLEURISY:

℞.—Syr. ferri iodid..... ʒijss.
Potassii iodid. ..... ʒj, ℈j.
Syr. sarsaparillæ comp..... ℥j.
Aquæ..... q. s., ad ℥ij.
M.—S. ʒj four times daily, in water.

—*Anders.*

FOR CARDIAC DROPSY:

℞.—Digitalis..... gr. xij.
Sennæ fol... ..... ʒss.
Aquæ bullientis..... ℥vj.
Fiat infusum, et adde:
Sodii iodid..... ʒij.
Sodii phosphat..... ʒvj.
M.—S. ℥ss every three to six hours.

—*Gerhard.*

ALTERATIVE FOR TERTIARY SYPHILIS:

℞.—Potassii iodid..... ʒijss.
Syr. acidi hydriodic..... ℥j.
Aquæ destillat..... ℥iij.
M.—S. ʒij thrice daily, in a wineglassful of rice water (to detect free iodine).

—*Gerhard.*

FOR ENLARGED PROSTATE WITH CYSTITIS:

℞.—Ergotinæ,
Pil. hydrargyri pulv. ....āā ℈j.
Salolis ..... ℥iij.
M. et divide in partes æquales No. xx et in capsulas gelatinas dantur.
S. Take one capsule thrice a day.

—*Gerhard.*

FOR ACUTE PLEURISY:

℞.—Ext. jaborandi fl..... ʒj.
S. Take at once, in a cup of hot water.
℞.—Sodii citrat..... ..... ʒij.
Sodii acetat..... ʒij.
Sodii salicylat..... ʒij.
Aquæ menthæ pip..... q. s., ad f℥vj.
M.—S. ℥ss every two to four hours.

Hot flannels to chest, sprinkled with laud num, and a towel pinned tightly around body; dry diet; rest in bed; flannel underclothing and night-dress.

—*Waugh.*

FOR CONVULSIONS IN A CHLOROTIC WOMAN:

℞.—Auri bromidi..... gr. j.
Arsenici bromidi..... gr. j.
Ferri bromidi..... gr. xl.
M. et in pil. No. xx div.
S. One after each meal.

—*Waugh.*

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WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

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PSYCHIC SEQUELÆ OF TYPHOID FEVER.

IN a paper presented to the Pennsylvania State Medical Society in 1886, the writer gave the history of two cases that served to illustrate the point of his argument: that severe and prolonged attacks of typhoid fever sometimes leave behind them alterations of the mental state, as well as physical lesions. As these cases have been buried from the light of day in the transactions, in which alone they were published, we will reproduce here the history of one case.

The subject was a boy of good habits, loyal and affectionate in his disposition, not very bright as a student, but somewhat dull in business matters, giving no evidence of any special ability of any sort. For all that, he was steady, and devoted to his parents. In 1876 he had typhoid fever; a long and severe attack; lying in bed for thirteen weeks, under an expectant treatment. During the whole period of his delirium he raved about money. Visions of wealth, and the urgent need of money for his business, were the subjects of his waking and sleeping dreams. When, at last, he recovered, he remarked one day that he must go down to the bank and draw some money. Inquiry showed that he believed himself the possessor of balances amounting to hundreds of thousands, the fact being that he had not a penny on deposit. His friends endeavored to convince him of this, but to no purpose; though he was silenced, he never acknowledged his mistake. When he began to go about, he acted fully up to the part of a young man of unbounded fortune; went to the wildest extravagance, dissipation of every sort, raised money in every possible manner, honest and otherwise, and was finally compelled to leave the city. Since that his career has been checkered. He developed a remarkable talent as a canvasser, of which he showed no trace before his illness. This has been the means of securing him good situations wherever he went; but sooner or later he has always become involved pecuniarily, and had to give up. From city to city he has gone, repeating this history in each. Sexual excess, syphilis, and alcohol, have each added their effects to that produced by the original trouble, the fever. But from his convalescence he showed evidences of a total change of disposition. The change was shown in his total loss of all sense of moral obligation; of his previously warm affection for his family, of which he now rarely displayed any evidence, save what he assumed for motives of extortion; his delusion of wealth; and the development of unusual capacities in one line of business.

Throughout the years that have since passed, there has been a slow but gradual development of his malady, that is now assuming the form of paranoia. To the operation of the degenerative causes already mentioned, may be added that of absinthe; which he has been drinking for some months.

His present condition may be judged from his latest exploits: He began purchasing goods in a lavish manner; ordering clothes, jewelry, etc., when his pockets were empty and his family hungry. He bought a watch, signing the name of a firm to the order; arranged for the purchase of a little child's pony and cart—an utterly useless thing to him. He excused his extravagance by claiming that he had made a sale that would net him over $1,000; but so far was this from the truth, that the firm to whom he claimed to have sold the goods had not bought them and had no intention of doing so, as they were not such as they used in their business. Many similar eccentricities occurred; as the result of which he found himself in prison. Here he remained for several weeks, long enough for the effects of alcohol to disappear, and he was released. He immediately telegraphed to his family that he had made $1,000 within an hour after his release, and $12,000 within a week; the truth being that he had done nothing at all.

The difficulty with this case has been that, while his friends have considered him of unsound mind, he had done nothing so palpably insane as to justify them in putting him under restraint. Even now, although his countenance is assuming the characteristic facies of dementia paralytica, it is uncertain whether he could be legally restrained. The only possible course has been to wait until the progress of his disease shall have brought him to that condition in which his mental alienation is manifest.

To the eye of the public this man is simply a rascal; but nobody who has followed the case from childhood can fail to see that the turpitude dates from the typhoid attack, which ended at a stroke his innocent life; and from that period he has been another being.

This is not an isolated case. In the article in which this was described, another instance was related of mental aberration following typhoid, but of another character. Syphilis is said to frequently occasion a loss of the sense of moral obligation; as many an unpaid doctor will testify. If the subsequent history of patients recovering from severe attacks of septic fevers was carefully studied, we would find in the profound alterations of the tissues the source of many cases of depravity. Such a study would, we believe, shed a light upon the pathogenesis of crime; and enable us to look upon the unfortunates of the criminal class with that "mercy whose quality is not strained," and yet not outrage the

sense of justice, which metes out punishment where deserved.

In men whom men declare divine
I see so much of sin and blot—
In men whom others class as ill,
I see so much of goodness still—
I hesitate to draw the line
Where God has not.

Annotations.

AND now our distinguished visitor, Professor Miller, is said to have alleged that caries of the teeth may be transmitted by kissing.

If Professor Miller has nothing better in the way of advice, he had better have stayed at home. What! And so many pretty girls about as there are this season, too! We don't believe a word of it!

PIRACY on the high seas is supposed to be a thing of the past; but when we read of a Malay cook and crew conspiring to poison the whites on a vessel and take her to their islands, we wonder whether we live in the present, or if the days of Marryat and Tom Cringle are returning. This is the story brought to Philadelphia by the ship "Lizzie Troop."

THERE is one manufacturer who has the manliness to publish his little journal for just what it is—an advertisement of his wares. Every number of Stearns' *New Idea* comes to us with a postage stamp affixed. Compared with several other manufacturers' periodicals, the *New Idea* is not a whit more of an exclusively advertising medium for the publishers than the others, which enjoy second-class privileges. These are the things that make legitimate journalism difficult. One of these imitation journals parades its "Entered as Second-class Matter" before our faces, when, since its first appearance, there has not been a line in its pages that has not been a direct advertisement of the goods its publisher had for sale.

A NEW dodge is reported in Western mortgages. Taxes are prior liens. In Kansas, if not paid, the property is sold, redeemable within three years, with twenty-four per cent. interest added annually. A company is alleged to allow lands securing its loans to be sold for taxes, buys the certificates, and notifies the mortgagers that, to protect their interests, they must take up these certificates and twenty-four per cent interest, and that the money realized from such sources is used to pay interest upon the debenture bonds. In one case the holder of a guaranteed mortgage found that this land was sold for taxes nearly three years ago, so that he must buy up the certificate at once, with seventy-two per cent. added, together with all subsequent taxes and twenty-four per cent. interest thereon, or lose his security altogether.

DR. STEMEN, in the *Journal of the American Association of Railway Surgeons*, speaks as follows of the editorial comments on his book on Railway Surgery:

In looking through the journals we find some very favorable notices of the work on railway surgery, and a few not so favorable; but, of the latter, it is only necessary to say that the *reviewers* are not among the leading editors in this country; in fact, we find that they were unable even to write a notice of the work without violating the rules of English composition; but we are glad to know that but three of the medical journals have had anything unfavorable to say of the work.

Does Dr. Stemen believe his work above the reach of criticism? One who puts a book before the public must expect blame as well as praise, and not plead the baby act. We found the book deserving of some commendation and some blame; creditable as a pioneer work, but with many crudities.

We give the author credit for capacity to give us a much better book in the next edition—one which will do justice to an important subject. If, however, strictures which are well meant and perfectly just, are met with a spirit of wounded vanity only, railway surgery must look elsewhere for its spokesman.

HOSPITAL FACILITIES.

OUR attention has been called to the great disproportion in the number of beds reported as at the command of the medical colleges in Philadelphia; and to the fact that this is due simply to a different method of making the report. Thus, the University reports 1,100 beds; but this includes those in the various hospitals with which members of the faculty are connected. This was so specified in the report furnished us, and should have appeared in our Student's Number. The Jefferson College reports only the beds in the College Hospital; as does the Medico-Chirurgical. The University Hospital has 150 beds; the Jefferson the same number; the Medico-Chirurgical will contain about 110 when the present alterations are completed. The Philadelphia, Pennsylvania, Orthopedic, German, Philadelphia Lying-in, Wills and Episcopal hospitals are open to all the colleges alike, and the members of the faculties of all the schools are connected with the staffs of nearly all. The Children's Hospital is, we believe, controlled exclusively by the University, though students from other colleges are admitted to the clinics. From this it will be seen that none of the Philadelphia colleges can justly claim any superiority as to clinical facilities.

Letters to the Editor.

CHILLS DURING PREGNANCY.

MRS. L., aged twenty-four, has three children, and has had one miscarriage. Married when sixteen. First child delivered with forceps, on account of spasms. During the following pregnancies she suffered considerably with chills, and was told by her attending physician that she must have no more children. She is now three months pregnant; has been running down in health for two months, and for three weeks has been having two violent chills a day, morning and afternoon. No appetite, but does not vomit; has insomnia and headache, pain in back. Before chills, passes large quantity of light-colored urine. An examination could find no albumen or sugar.

I at first thought there was malarial poisoning, but quinine was given without effect. There is no elevation of temperature. I have given, besides quinine, digitalis, Basham's mixture, sp. ætheris comp., and am now stuck, as she is steadily losing strength. There has been no sexual intercourse since chills began.

H. A. S.

[We would suggest a careful examination of the liver and spleen; also, put a drop of blood under your microscope and look for pigment. In spite of the failure of quinine, we look upon malaria as the most likely cause of the chills, and would give quinine in full doses if there is any elevation of temperature during or after the chills. If not, the chills can be only evidences of nervous perturbation, and the remedies are to be directed rather to the mind than the body. Throw aside altogether the advice of former attendants to bring on an abortion—advice too readily given in that it generally meets the patient's wishes half-way. Make an independent investigation of the patient's genital apparatus, and see if there is any real reason for apprehending danger. If not, the confident assurance of safety will prove a valuable therapeutic measure. If no material cause can be found for the symptoms, rest assured that they are due to fear or unwillingness to bear the pangs of maternity. Valerian or viburnum should be of value here, and an effort should be made to forestall the chills with chloroform, morphine, or pilocarpine. Lorini's elixir of coca sometimes proves of efficacy in restoring the nervous system to a normal condition.

--W. F. W.]

Book Notices.

Wood's Medical and Surgical Monographs. Volume VII, No. 3. September, 1890. Price, $10.00 per annum; $1 00 per volume.

Contents: Insomnia and its therapeutics. By A. W. Macfarlane, M.D. Index for vol. vii.

A Treatise on Hfadache and Neuralgia, including Spinal Irritation and a Disquisition on Normal and Morbid Sleep. By J. Leonard Coveing, M.A., M.D. With an appendix: Eye-strain, cause of Headache. By David Webster, M.D. Illustrated. Second Edition. New York, E. B. Treat, 5 Cooper Union. Price, $2.75.

This is one of the best works the publishers have as yet issued in this series. The author's apparatus for local treatment shows much ingenuity. We recommend the book to the consideration of our readers.

The Physician's Companion. A Pocket Reference Book for Physicians and Students. By C. A. Bryce, M.D. Pp. 164. Cloth, $1.00. Leather (especially for the pocket) $1.25. Richmond, Va., The Southern Clinic, 1890.

Contains a summary of practice, symptomatology and treatment, surgery and emergencies, diseases of women, obstetric emergencies, infant feeding, poisons and antidotes, medical odds and ends, etc.; in a word, about all those things one can want in a little book that can be easily carried in the pocket without spoiling the set of the coat. It is evidently not the work of a closet physician, but of a real practitioner who knows something of the real needs of his class. As such we recommend it to our readers.

Recherches Cliniques et Thérapeutiques sur l'Epilepsie, l'Hysterie et l'Idiotie. Par Bourneville, Sollier et A. Pilliet. Vol. X, avec 22 figures dans le texte et une planche chromo-lithographique. Paris, aux bureaux de Progrès Médical, 1890.

These records of the year's experience of the learned physician to Bicêtre and his colleagues are of great value; not only to the specialist, but to the physician at large. It is, indeed, to be regretted that the group of affections treated here is relegated to the specialist; for better results could hardly fail to be secured if each physician could treat a few cases intelligently. For of all classes of hospital patients, none are so certain to be neglected as these; while the results of *individual* treatment are brilliant.

The amount of work recorded in the present volume may be inferred from the fact that over 44,000 baths were given.

The bromide of gold was employed in ten cases of epilepsy. Of these, in three there was a "notable amelioration;" in five, a "light diminution" in the number of convulsions; in the others, no benefit ensued. The general effect on the bodily health was good. The drug was given in single daily doses, of varying size, and for long periods. This confirms our own opinion as to the reputed efficacy of gold, published some months ago in this journal.

The bromide of camphor, however, again proves of marked value in cases of epileptic vertigo.

Of ten cases treated by picrotoxine (half a milligramme daily, increased to two milligrammes), two showed undoubted improvement, three slightly improved, the rest became worse.

Familiar Forms of Nervous Disease. By M. Allen Starr, M.D., Ph.D. Professor of Diseases of the Mind and Nervous System, College Physicians and Surgeons, N. Y. Wm. Wood & Co., N. Y.

This work does not claim to be a "treatise" on nervous diseases, but it succeeds better than most so called treatises, in so far as it goes. It helps the general practitioner to such guides, so that he can recognize the nervous diseases most commonly presenting themselves, and have at the same time a clear conception of the lesions present, and of the available therapeutic resources. And this is done inside of 321 pages of very readably printed type. The illustrations are generally very well adapted to their purpose, except that in some of them the reference figures are troublesome to manage on account of being printed on dark backgrounds. It is not likely that the general practitioner could get what he wants as quickly from most other works on neurology, on such subjects as Jacksonian epilepsy, aphasia, locomotor ataxia, infantile paralysis, and many other frequently occurring forms of disease. S. W.

Pamphlets.

Transactions of the N. Y. State Medical Association, for the year 1889. Volume VI. Edited for the Association by Edward K. Dunham, M.D. Contains twenty-eight papers besides minutes of the proceedings.

Local Boards of Health in the State of New York. Albany: The Argus Company, Printers. 1890.

The Treatment of the Morphine-Disease. By J. B. Mattison, M.D., Home for Habitués, Brooklyn, N. Y. Reprinted from the *Therapeutic Gazette*. Detroit, Mich.: George S. Davis, Publisher. 1890.

Dr. Mattison is an expert in the treatment of morphinism, and whatever he says on that subject will be found both instructive and interesting.

Longevity and Climate. Relations of Climatic Conditions to Longevity, History, and Religion.—Relations of Climate to National and Personal Habits.—The Climate of California and its Effects in Relation to Longevity. By P. C. Remondino, M.D., San Diego. Read before the Medical Society of the State of California.

Hypodermic Medication in Diseases of the Eye. By Charles J. Lundy, A.M., M.D. Detroit: 1890.

The Medico-Legal Aspect of Abdominal Section. "She Thought it was Her Change of Life." By A. Vanderveer, M.D., of Albany, N. Y. *Journal of the American Medical Association*. Chicago: 1890.

Comparison Between Perineal and Suprapubic Cystotomy, With Report of Cases. By A. Vanderveer, M.D. *Albany Medical Annals.*

The Medical Digest.

FRENCH NOTES.

By A. E. Roussel, M.D.

Strychnine as an Antispasmodic.—At the Berlin Congress M. Benedikt, of Vienna, remarked that strychnine was generally considered as stimulating the medullary excitability. In a girl of twelve years affected with a mimic spasm, which showed itself by twitching of the lips and complicated by an ordinary chorea, M. Benedikt tried without result all the different forms of treatment used in similar cases. The idea then occurred to him to make use of the treatment first pointed out by Trousseau, which consists in the use of strychnine. He, therefore, prescribed :

℞.—Subnitrate of strychnine..... 0 gr. .10.
For twenty pills. Take from three to five pills in the twenty-four hours.

The effect of the medication was striking. Both the spasm and the choreic movements diminished, and in a very short time the young patient was cured.
—*La Médecine Modern.*

The Use of Sulphonal in Diabetes Mellitus. According to Casarelli sulphonal has an efficacious action in the treatment of saccharine diabetes. The author summarizes as follows :

1. Sulphonal exercises a favorable influence in diabetes. Thanks to this remedy we notice a diminution of sugar and of the quantity of urine, a diminution concomitant with the polydipsia.

2. This amelioration manifests itself but to a slight degree it is true, even after the use of 1 to 2 grammes a day, but it becomes marked after doses of 3 grammes in the twenty-four hours repeated several days in succession.

3. Even when continued for a long time, sulphonal in doses of 2 grammes does not provoke any unpleasant secondary phenomena. Given in doses of 3 grammes a day, it is at first well tolerated ; but if continued it is soon followed by extreme somnolence and vertigo. But a reduction of the dose will soon do away with these troubles.

4. The good effects of sulphonal is equally well manifested with an absolute meat diet. If we stop the sulphonal in this case we will at once find abundant sugar in the urine.

Casarelli gives to this substance marked preference to antipyrine, which in his hands has given markedly inferior results in the same condition.
—*La Bulletin Médicale.*

The Use of Valerian.—Valerian possesses a real efficacy in that group of maladies of women designated, for want of better, under the names of *nervous state*, *spasmodic* condition, etc. It has an incontestable therapeutic action against certain *hysterical phenomena*. It acts well in those cases of *vertigo*, *etourdissements* similar to those which announce the danger of a cerebral hemorrhage, and which, however, is not allied to this grave affection. It is equally employed in *choreic anæmia*. It renders service in a number of cases of *simple paralysis*, and in a general way it diminished the production of urea.

Formulas Relative to the Preparations Most Used.—
1. Extract and Root.—Bolus of Valerian :

℞.—Powdered valerian..... 0 gr. .25.
Powdered cinnamon..... 0 gr. .05.
Honey.....q. s.
For one bolus ; take from four to twenty a day.

Confection of Extract of Valerian :

℞.—Extract of valerian..... 20 grammes.
Powdered valerian..... 20 "
Powdered orange leaves.....q. s.
Five to forty grammes a day, and even more if necessary.

Antispasmodic Lavement :

℞.—Valerian root..... 30 grammes.
Make infusion with boiling water.. 250 "
Filter and add :
Asafœtida..... 4 gr.
Yolk of egg..... No. 1.

Antihysterical Pills :

℞.—Powdered valerian..... 8 grammes.
Galbanum,
Sagapenum,
Asafœtida.....āā 4 grammes.
Make pills of 0 gr. .20 ; three to four a day.

Antineuralgic Pills (Roger) :

℞.—Extract of valerian,
Asafœtida,
Galbanum,
Castoreum.....āā 0 gr. .05.
For one pill ; three to four a day.

Antispasmodic Potion :

℞.—Valerian..... 8 grammes.
Make infusion in boiling water.... 150 gr.
Filter and add :
Distilled canella water..... 60 grammes.
Sulphuric ether..... 8 "
Simple syrup..... 40 "
A tablespoonful each hour.

2. Valerianate of Ammonium.—Pills :

℞.—Valerianate of ammonium..... 1 gramme.
Extract of valerian..... 1 "
Powdered valerian .....q. s.
For 40 pills. Take from 20 to 25 a day.

Potion :

℞.—Valerianate of ammonium..... 1 gramme.
Syrup of mint..... 30 "
Tilia water..... 120 "
Two to five tablespoonfuls each day.

Lavement :

℞.—Valerian root..... 20 grammes.
Boiling water..... 300 "
Valerianate of ammonium..... 0 gr. .50.

3. Valerianate of Atropine :

℞.—Valerianate of atropine..... ½ to 1 milligr.
Simple syrup..... 25 grammes.
Tilia water..... 120 "
One tablespoonful each hour.

4. Valerianate of Iron.—Tonic Pills :

℞.—Valerianate of iron..... 1 gramme.
Extract of cinchona.....q. s.
For 20 pills ; 2 to 10 a day.

Pills for Chorea :

℞.—Valerianate of iron..... 4 grammes.
Extract of cinchona.....q. s.
For 40 pills ; 3 a day.

5. Valerianate of Cinchona.—This salt is administered with excellent results to combat neuralgia; it gives equally good results in typhoid fever with delirium.

Lavement :

℞.—Valerianate of quinine..... 0 gr. .50 to 1 gr.
Hot water..... 150 grammes.

Pills :

℞.—Valerianate of quinine..... 2 gr.
Extract of cinchona.....q. s.
For 20 pills.

Potion :

℞.—Valerianate of quinine..... 0 gr. 50 to 1 gr.
Sweetened infusion of cascara.... 125 grammes.
Tablespoonful at a dose.

Capsules :

℞.—Valerinate of quinine....From 0 gr. .25 to 0 gr. .50.
To each capsule.

In typhoid fever we give 1 gr. a day divided into two doses.

6. Valerianate of Zinc.—Antispasmodic Pills :

℞.—Valerianate of zinc..... 4 grammes.
Extract of cinchona..... 2 "
Subnitrate of bismuth..... 2 "
For 40 pills; 3 to 4 a day.

Powder :

℞.—Valerianate of zinc..... 0 gr. .05.
Vanilla sugar..... 1 gr.
For one dose; 1 to 4 a day.

—*La Bulletin Médical.*

For Dyspepsia (Dujardin Beaumetz):

℞.—Maltine..... 1 gramme.
Powdered bicarbonate of soda.... 1 "
Calcined magnesia ..... 2 "
Powdered white sugar..... 10 "
Mix with care and divide into 20 parts; one part after each meal

—*Journal de Méd.*

Treatment of Cancer of the Stomach (Peter). —The treatment of cancer of the stomach presents two indications to fulfill; 1. To combat the hyperemia of the pepsin cells which surround the neoplasm. 2. To stimulate the appetite.

We treat the first indication with success by counter-irritants on the pit of the stomach, a blister kept open for some time.

To stimulate the appetite, we have recourse to the bitters, of which the best is the liquor of Baumé.

We will give from one to three drops before each meal. To facilitate digestion, we will administer a small quantity of hydrochloric acid: 10 drops in 200 grammes of water, and 50 grammes of syrup of lemon. One or two tablespoonfuls at a dose.

—*La Bulletin Médical.*

A Tennessee doctor is credited with delivering two children with a pair of shoemaker's pincers, using the carved handles as obstetric forceps.

An Alabama doctor tells about a patient of his with neuralgia, who took a sharp cornered rock and broke a hole through his cranium, and poured swamp water in to cool off his brain.

We are ready now to hear from the man who performed an iridectomy with a monkey wrench, and a Cæsarean section with a buck saw. There's nothing like expedients when you are in a pinch.

—*The Country Doctor.*

Newspaper Reading.—The average reader, busy with his own engrossing cares, skims lightly over the thousand facts massed in several columns. His eye learns to neglect almost everything, and only here and there delays long enough on some subject of personal interest, or of exceptionally striking, or terrifying effects. The influence of all this on the reader's mind is very disastrous. To win his attention he must be amused, excited, terrified. Quiet, thoughtful consideration of any subject seems to him tame. Marshaling of facts, pro and con, and deduction therefrom, have no part in his mental processes. His mind hurries from one subject to another, and his resulting ideas are crude, while his thoughts are loosely and carelessly arranged. Clearness of perception and exactness of expression are wanting, so that from his desultory reading comes only superficial thinking. The mind staggers under the load of mere facts and ceases to grow and strengthen.

—Russell, quoted in *N. Y. Med. Times.*

Case of Chyluria.—About ten days ago I was consulted with regard to a girl, five years of age, who had passed milky urine for several days. Upon microscopical examination of the urine, it was found to contain innumerable specimens of *filaria sanguinis hominis.* I did not examine the blood, but shall if the case continues. I placed her upon gallic acid, and four days later failed to find filariæ, though the urine was still somewhat chylous.

As the patient was born in this city and was never out of the county, it is undoubtedly of local origin. I believe such cases are more frequent than we know of; but the true diagnostic means—the microscope—is not made use of as frequently as it should be.

Tyson states that he only knows of one case of chyluria of North American origin. Five cases were collected by Dickinson, which, however, all originated in England.

Jaksch does not mention a case of North American origin, though he quotes from Wucherer, Lewis, and others, in tropical countries.

—Weiss, *N. A. Practitioner.*

New Uterine Curette.—Being urgently in need of a large sized curette for a special case, I devised one as follows: Having a universal handle belonging to a cotton-holder, I took the wire of the holder, which is seven and one quarter inches long, and inserted a loop of watch-spring between the split end, putting in two rivets, and soldering up the openings to make it impervious to blood and septic matter. The spring is three-quarters of an inch in diameter, and one and one-half inches in length inside of the loop. It is one eighth of an inch wide, and the usual thickness of watch-springs. This answered my purpose satisfactorily. If a smaller one is required, a slide could be put over the wire carrying a compressor that will make any size opening down to three eighths of an inch. Any watch-maker being able to put in the spring in twenty minutes, a set of three or four can be made at nominal cost, thus furnishing the physician with a simple, cheap, and effective instrument for removing foreign material from the uterine cavity. The spring being so thin, it will seldom be necessary to sharpen the edge for removing vegetation, etc. Brass wire is used to hold the spring.

—Alford, *Weekly Med. Review.*

Medico-Legal.— Russell (*Journal of the Nat. Assoc. Railway Surgeons*) describes a case in which he was sued for damages in a case he never treated, and cast for two thousand dollars' damages. A new trial was refused. He appealed to the Circuit Court; refused an offer from the prosecution to settle at one thousand dollars; the court ordered a new trial, which was contested bitterly, and the jury took just ten minutes to find a verdict in his favor. Reviewing the question of the physician's legal responsibilities, he reaches the following conclusions:

1. A physician or surgeon, without a special contract for the particular case, is never considered as warranting a cure.

2. His contract, as implied by law, is that he possesses a reasonable degree of learning, skill, and ex-

perience, which is ordinarily possessed by his colleagues in the profession, and that he will use reasonable diligence in the treatment of the case, and good judgment in all cases of doubt as to the best course of treatment.

3. He is not responsible for want of success, unless it is proved to result from want of ordinary skill, or from want of ordinary care and attention.

4. He is not presumed to engage for extraordinary skill, or for extraordinary diligence and care, without the same is specified in the contract.

HAY FEVER.—In the *State Board of Health Bulletin*, (Tenn.), Dr. Daniel F. Wright, of Clarksville, a member of the Board, advocates the idea of the curability of this pestiferous malady. He thinks that by anticipating the annual recurrence of the disease and resorting to a locality free from its etiological factors for several consecutive seasons, the unfortunate individual will secure an immunity from his trouble that will be permanent. He speaks in high terms of Roan Mountain (Cloudland), in upper East Tennessee, and from his article we submit the following extract:

"Let it not be supposed, however, that I am about to set forth the specific virtues of some new drug for this purpose, or even those of certain mineral waters impregnated with miraculous chemical ingredients. The only merits possessed by the waters here consist in their perfect purity; and the atmosphere is beneficial simply from its coolness, moisture, and its freedom from dust of all sorts, including that vegetable dust which is constituted of the pollen of various plants. Very few of the plants which constitute the Roan Mountain *flora* give any pollen to the atmosphere, by far the greater number consisting of *coniferа*, *ferns*, and *labiates*, while the great moisture of the air prevents the rising and diffusion of such as might otherwise irritate the nostrils of visitors. In short, the qualities of air and water are simply negative—they simply fail to supply the irritants which are elsewhere the exciting causes of hay fever."

—*Southern Practitioner.*

OBSTRUCTION OF ILIAC VEIN.—The next patient was a man twenty nine years of age. About nine years ago he was suddenly seized with a sharp pain in the posterior aspect of the knee-joint and radiating up the thigh. Immediately afterwards he noticed a swelling of the leg below the point the pain was first experienced, and a progressive enlargement of the veins of that region. His trouble gradually increased in severity until it terminated in the formation of ulcers around the ankle joint and other parts of the leg. By maintaining his leg in an elevated position and by the use of an elastic stocking used conjointly, it was found possible to relieve all the symptoms; but last year the ulcers became more obstinate than usual, and have refused to heal under any treatment whatever.

On his entering the Polyclinic Hospital a diagnosis of obstruction of the iliac vein was made by Dr. Wyeth. As it was a matter of the greatest importance to the patient to prove that such was in reality the case, an exploratory incision under ether was performed. An incision was made through the abdominal muscles above Poupart's ligament and the iliac vessels exposed to view. The iliac vein was found to be obliterated. The abdominal wound was closed under strict antiseptic precautions, prompt union taking place.

The patient was advised to try what could be accomplished by the use of well fitting elastic bandages and an elastic stocking to support the circulation in the limb, and if that should fail in bringing about the desired result, amputation above the knee joint should then be resorted to.—*Internat. Jour. Surgery.*

CONTAGIOSITY OF TUBERCULOSIS.—Last fall I was called to see Mrs. Lone Bull, an Indian, who had had a hemorrhage from the lungs; examination revealed well marked pulmonary tuberculosis. About Christmas I visited Lone Bull's family and found them living in a cabin with but a single room, which admitted of little, if any ventilation. There was living, and had been for some time, the family of Grey Haired Bear in the same room, also a young man Lucke Low Buck and his sister. I advised the urgent necessity of their finding different quarters, but my counsel was not heeded. In January, Mrs. L. B., was confined, giving birth to a child that soon developed and succumbed to tubercular meningitis. I feel convinced that the child received the infection through the mammary glands of the mother, who was by that time in the last stages of consumption. Mrs. Grey Haired Bear had hemorrhages, and began to waste away. Lone Bull's daughter, eight years of age, developed tuberculosis, and is having hemorrhages. Low Buck's sister, six years old, died with the same disease. Grey Haired Bear's son of four, broke down and died of consumption. His second son, aged two, had whooping-cough, which was followed by tabes mesenterica, and resulted in death. Mrs. G. H. B. died in April, Mrs. L. B. in May; Low Buck is still alive, but very ill. Lone Bull and Grey Haired Bear both have pulmonary tuberculosis. The cat belonging to these unfortunate people was constantly on the floor, and lapped the sputa expectorated by them; soon it sickened, wheezed, coughed, became emaciated, and died. Could the contagion of small-pox or scarlet fever be more certain in their results?

—Treon, *Cincinnati Lancet-Clinic.*

CHRONIC SYNOVITIS.—I shall now present to you a patient illustrating in his lower extremity one of those sequences so frequently met with after fixation and complete immobilization of a joint, especially in the case of people whose circulation is very defective. This man's knee joint had been injured by a fall, and he had necessarily to be subjected to treatment by fixation and rest.

Most of you will recollect the lecture I delivered in this hall on the treatment of Colles' fracture and the great stress I laid on not confining the fingers in a bandage. I then stated to you that the fingers should be left free, so that the tendons could play in their sheaths and the little joints remain flexible. If the joint of any aged person be confined for a certain length of time—even though it be not injured—the joint thus confined will become stiff. The folds of the capsular ligament will have assumed such a strained position that as soon as the patient makes an attempt to move his joint, the very act will elicit pain.

The condition in the joint of this man is somewhat analogous to what I have just described. We have here a chronic synovitis of the ankle-joint due to compression and fixation of the parts. He is now adopting the very best kind of treatment that it is possible to give him, viz.: walking and taking active exercise of the joint. This will be supplemented by stimulation of the local circulation by means of hot water douches upon the limb, and when the vessels appear to be all distended with blood, when the circulation has become active, then by the employment

of massage, commencing at the toes up to the knee-joint and the use of passive motion of the joint. This will be done once a day, and in a short time he will recover the full use of the limb.

—Gerster, *Internat. Jour. Surgery.*

Electricity in Pelvic Disease.—1. Myomata should receive a thorough trial by electrolysis before attempt at extirpation.

2. Interpolar electrolysis is sufficiently well established to expect good results in reducing myomata without puncture, if a strong current be passed directly through the tumor. Puncture should wait upon interpolar electrolysis.

3. All inflammations of the uterine adnexa should be treated by electricity thoroughly, before laparotomy is resorted to, for many cases are amenable to this treatment.

4. There are some cases of pus-tubes that may be best treated by opening the uterine end of the tube and securing drainage through the uterus. Others should be punctured by electricity, through the vagina.

5. Ectopic pregnancy should be treated by electricity as soon as a diagnosis is made, either by galvanism, to kill the fœtus, or by faradism, to expel the same, provided it has not passed the fourth month of gestation, or there is not actual or impending rupture of the tube.

6. Electrolysis is the proper treatment for cervical stenosis.

7. Galvano cautery is a superior means of extirpating uterine cancer, in many cases.

8. Early diagnosis and proper treatment of endometritis by intra-uterine electrolysis will cure most cases, and prevent many cases of salpingo-ovaritis.

9 All surgical procedures that may be performed by electricity are better so performed because of the incidental influence upon nutrition.

10. Electricity is a conservative measure of great value in the treatment of nearly all pelvic diseases where the knife is now used.

—Sprague, *Weekly Med. Review.*

Sanitary Teaching.—The greatest obstacle to the correct application of sanitary principles is either the ignorance or carelessness of those likely to be benefited. Men of general intelligence will allow their farm-yards, their cellars, their ponds and drains to be breeders of disease, which may endanger not only their own lives, but that of the neighborhood, simply through carelessness, or fear of temporary expense. It is true the health boards have been of inestimable benefit to the community where they are located; but if every physician would constitute himself a health officer in the neighborhood where he resides, pointing out the breeding-places of disease, not alone in pond and ditch and swamp, but in the houses and the out-door premises of his patients, he would have a much more satisfactory, if not as lucrative, practice. If the masses of the people possessed that education in sanitary matters which every physician should be prepared to give, the death-rate, in the rural districts especially, would be very much lessened. A striking illustration of the danger to an entire community by the ignorance and obstinacy of a few individuals is seen in the rapid spread of the cholera in Spain; so great is the opposition of the peasants to any change in those conditions upon which the very existence of the cholera depends, that the government physicians will no longer visit them unless protected by a strong military escort. If the lives of those in the immediate district were only endangered through their own obstinacy, they might be left to their fate; but the seeds of disease ripening among them are scattered broadcast, and spread from nation to nation. Of course, in our own country we seldom meet such ignorance and obstinacy; but every physician will find an abundant use for all his information upon sanitary matters, which information should be volunteered whenever it will be productive of good.

—*N. Y. Med. Times.*

Prolapse of Funis.—Prolapsed funis should be treated as follows: When a case is met, every precaution should be taken to preserve the membranes intact until the os is fully dilated and the head well down upon the perineum, observing in the meanwhile the circulation through the cord, which will at all times indicate the condition of the child, or any impending danger. When labor has progressed sufficiently, or the pulsation of the cord show danger, rupture the sac, apply the forceps and deliver quickly as need be. Should the case be one in which the liquor amnii has been discharged and the os not yet dilated, insert two fingers into the os in such a manner as to receive the cord between them to protect it from pressure; after each pain push back the head, if pressure upon the cord is indicated by impeded circulation. Continue this until the os will permit the use of forceps, when, if symptoms indicate, apply them and deliver. Should the cord protrude from the vulva it should be placed loosely within the vagina, as few kinks in it as possible, where it is to be kept for warmth while a portion is held between the thumb and finger, or against the finger, that the circulation in the cord and the progress of labor may be noted. The cord is to be relieved from pressure on the subsidence of each pain by pushing the head back. When the pressure can no longer be thus relieved satisfactorily, the forceps and delivery are demanded.

This practice, as briefly outlined, has been adopted by the writer in all cases of prolapsed funis since 1872. Previous to that time he, being timid about the use of forceps, tried the various other methods as taught. The result was that, previous to 1872, out of five cases met, five children were born dead—since 1872, and including that year, thirteen cases have been met and thirteen children been born alive, among which was one weighing fifteen pounds.

But I think I hear some say, Is there no danger of lacerating the cervix, or rupturing the perineum? Yes, some. But the child is entitled to a good deal of consideration at the hands of the obstetrician at all times, and the integrity of a cervix or perineum is not to be considered when the life of a child is in jeopardy. They can be repaired, but the life of a child can never be restored.

—Reed, *Toledo Med. and Surg. Reporter.*

Homonymous Hemiopic Hallucinations.—The following history of a case of paranoia presents something unique in the way of visual hallucinations:

H. K., aged twenty, single, came to the Vanderbilt Clinic, June 10, 1890, complaining of persecution by unknown persons. He had noticed since January last that "mesmeric influences" were being used upon him, and the conspirators, three in number, have been redoubling their annoyance as time went on. He has unilateral hallucinations of hearing. There are three voices in his right ear, all talking to him and not to each other. They tease him, swear at him, curse him, and call him names. In addition to

these uni aural polyphonic hallucinations, he is tortured by disagreeable odors and by peculiar tastes in his water and food.

His visual hallucinations are singularly limited to the right visual areas of each eye, so that we may, in fact, speak of them as homonymous hemiopic hallucinations. He sees at times skeletons and various people, but always moving about and upon his right side, and this is true if either eye is shut. They never appear upon his left side. If he directs his eyes toward his right side, where the vision appears, they move still farther toward the right.

He complains of paræsthesiæ, flashes of heat and waves of cold through his body, jerkings of his muscles and viscera, and pains in his trunk and limbs, all of which he ascribes to electrical devices. Most of the pains in his trunk are restricted to the right side, but there is no unilateral distinction with regard to those of the limbs.

His hallucinations are conjoined with the delusions of persecution already mentioned. He thinks there are several persons, certainly three, who control him by mesmerism and annoy him by telephony and electricity. He has purchased a dozen books on mesmerism and clairvoyance, hoping to gain sufficient knowledge of the subject to be able to counteract the schemes of his enemies. Latterly his attention has been called to hypnotism and suggestion, and to the ease with which people may be influenced to commit theft and murder under such control, by reading the newspaper interviews with some of our leading specialists. He had copies of these interviews in his pocket and showed some of the illustrations, among which was that of a man, under hypnotic influence, plunging a dagger into another. The patient intimated that he had some fear of being made to carry out some nefarious undertaking by his imaginary hypnotizers.

Although no heredity could be ascertained, he exhibits marked facial asymmetry, and in particular a remarkable malformation of the hard palate, showing that he belongs to the superior degenerate classes. His is in fact a typical case of paranoia with systematized delusion of persecution which have been evolved from a degenerative soil.

The case is related, however, merely on account of the very remarkable character of the visual hallucinations. Their limitation to the right visual fields of both eyes is absolute proof of their central origin, and they doubtless arise through irritation in the cortical visual area of the left occipital lobe. It would seem as if the cortex of the left hemisphere was the chief seat of disturbance in this case.

Unilateral hallucinations of one eye alone, or uniocular hallucinations, have been described by several authors as occurring in the insane, but, so far as I know, this is the first reference that has been made to visual hallucinations of the character herein mentioned, and for which I can find no simpler name than that which forms the title of this article.

—Peterson, *New York Medical Journal.*

ELIGIBLE VEHICLES FOR QUININE.—Doubtless every pharmacist and physician has his favorite method of disguising the taste of unpalatable drugs, but not every one is aware that the enterprise of manufacturing pharmacists now offers such a variety of vehicles from which to choose.

Some rely almost exclusively on pills and capsules, whereby the drug is smuggled into the stomach without recognition by the gustatory nerves. But there are patients whose apparatus for deglutition is so constructed as to render it almost impossible for them to swallow pills or capsules, as well as cases where it is all-important to secure immediate absorption of the medicine. When given in pill form, no matter how soluble the mass, an appreciable time must elapse before the remedy begins to have its effect.

How then can we administer quinine in solution or suspension—particularly to children or delicate ladies—without causing a disturbance in the family every time a dose has to be given? To children quinine may often be given advantageously by inunction, and the oleate of quinine especially, applied to the surface in this way, is readily absorbed and produces promptly the characteristic effect of the drug. Suppositories must not be forgotten in cases where the stomach is particularly irritable, and the hypodermic injection presents itself as a dernier resort when a prompt and powerful influence is required. But in ordinary cases quinine may be administered by the mouth.

One plan is to mix the quinine with some alkali or astringent, so that the bitter sulphate or muriate becomes converted into the tasteless alkaloid or tannate.

Another plan is to combine with the quinine a mixture having a bitterness of its own, which shall blend with and modify the intolerable bitterness of the quinine, some aromatic being generally added to still further disguise the objectionable taste.

It is on this principle that cascara cordial operates, and many of those who have tried this vehicle, declare that it is the best that has yet been offered. The especial advantage which it possesses over all others is the fact that it is a laxative agent, and so renders more efficient the action of the antiperiodic.

Licorice has been long known as having a remarkable power of covering the taste of bitter medicines. This property is due to a peculiar principle called glycyrrhizin, a glucoside, insoluble in water and in acid solutions, but readily dissolved by the aid of alkalies.

When quinine is given in powders, it may be rendered nearly tasteless by simply rubbing it up with a small quantity (one-fourth its weight) of ammoniated glycerrhizin (ammonium glycyrrhizate).

"Fluid extract licorice, for quinine mixtures," is one of the most efficient of all the preparations employed for covering the bitter taste of quinine. The best way to use it is to drop a dose of the powder into a little of the fluid extract contained in a spoon, mix it thoroughly and swallow at once.

Aromatic elixir of licorice is to be used in the same way as the fluid extract, but is especially useful in the drug store when a single dose of quinine is called for to be taken at once.

Yerba Santa contains a principle analogous to glycyrrhizin, which renders quinine in its presence as tasteless as starch. It appears to act like glycyrrhizin by producing a peculiar impression upon the gustatory nerves; it does not, as stated by some, produce with the quinine an insoluble compound. Unless the mouth is thoroughly rinsed after taking the mixture, a bitter taste will gradually develop as the nerves recover from the influence of the yerba santa.

To some persons the taste of yerba santa itself is disagreeable, and when this is the case licorice is to be preferred. Barring, however, idiosyncrasy in this respect, we can recommend the preparations of yerba santa as the best means of rendering quinine tasteless. Aromatic syrup of yerba santa renders it possible to give little children full doses of quinine without the vigorous remonstrances which physicians and parents have learned to regard as inevitable.

—*Northwestern Pharmacist.*

NERVOUS SEQUELÆ OF TYPHOID FEVER.—Dr. Kearns said: "A twelve-year old boy, in the third week of typhoid fever, ceased to speak even in monosyllables, and this condition continued for about ten days. During this time there was no apparent impairment of intellect. Sitting at the bedside of the patient and telling him to put out his tongue, he did it instantly. Telling him to look toward me that I might examine his eyes, he did it instantly. The pupils of the eyes were markedly dilated. Then, at the expiration of these ten days, the case assumed the very opposite condition and he became loquacious; he would take up any conversation which occurred in the room and follow it up repeatedly. This condition continued day and night, with some short intervals of rest, for ten days, when it gradually stopped. The pulse was accelerated during the period of excitation. It was at a normal rate during the period of quietude. All this time the stomach had been in good condition. Now, here are two extremes. What condition of the brain and nervous system was involved in these conditions of two extremes in the same patient and the same disease? This cerebral excitation was very difficult to control. The remedy which had the desired effect was calomel. I administered one-quarter of a grain of calomel every two hours, and when the bowels began to run off, gave smaller doses. I ascribed the symptoms to a complicating meningitis.

Dr. Thomas said he had been called to a thirteen-year-old boy who had been sick about a week. The fever ran an ordinary course. About the twenty-first day there was defervescence, and the patient seemed to be convalescent. He visited the boy as long as he remained in the city, and in the meantime he would not speak a word until the day before he went away, he got him to say one word. He did not feel uneasy about him, his temperature not being above normal. He went into the hands of Dr. McNeil. On his return he found the boy all right, and was told that in speaking to his grandmother, upon his beginning to talk again, the first word he said was "cracker." He said "cracker, cracker, cracker" for three or four minutes; then he ceased calling for crackers. Dr. Thomas looked upon the symptoms as caused by anæmia of the brain.

Dr. Stewart had observed a case where a man lost power in the right arm. The loss was progressive, and then he had convulsions. The convulsions were in the arm affected. Subsequently they became general and he would become unconscious. The convulsions became very frequent—several times a day. An operation was performed under the supposition of lesion in that area. The man had had syphilis. Potassium iodide had had no effect on the case. The brain was uncovered and only a localized meningitis was found. Incisions were made into the brain, but nothing was found. The man ultimately recovered the perfect use of his arm, and had no more convulsions.

Dr. McKennon said it was not uncommon for peculiar mental states to follow typhoid fever—mental weakness, and very frequently mental exhilaration. He had seen many cases of insanity due to typhoid fever. He had never seen meningitis in a child with typhoid fever. The weight of authority supported the supposition that the lesion was purely of a functional character, and that there was rarely structural lesion. Some authorities admitted the possibility of embolism which involved one artery.

Dr. Lang said that no matter what cerebral symptoms may occur in typhoid fever, there was no justification for the assumption of meningitis. No matter how violent or how peculiar were the cerebral symptoms, the assumption of meningitis was not correct nor justified. Typhoid fever and meningitis are not necessarily incompatible, but autopsies on typhoid fever which presents most violent and most ataxic symptoms have so invariably proven the absence of meningitis, and of all inflammation, that such symptoms cannot be correctly assigned to meningitis or to structural lesion, but to the effects of typhoid fever poison. He could not understand how the speech center could be affected by meningitis without previous greater injury to the motor areas, which, being in closer apposition to the meninges than the center of speech, would primarily, and to a greater extent, be subjected to meningeal pressure. For this reason paralysis was as common in meningitis as aphasia (barring comatose cases) was rare.

—Transactions, Allegheny Co. Med. Society.

Medical News and Miscellany.

DR. YERKES has removed to West Chester.

DR. H. J. LACIAR, of Bethlehem, is quite ill.

DR. DAVID D. STEWART has removed to 1310 Walnut street.

DR. R. CHESTON, of Chestnut Hill, is down with typhoid fever.

DURING 1889 there were 1,356 deaths from delirium tremens in England.

DR. DANIEL KARSNER is about to remove to Green and Tulpehocken streets.

CHOLERA has reappeared at Toledo, Spain; and four cases are reported at Jerez.

DR. A. E. ATKINSON has been nominated for Congress in the 18th District of Pennsylvania.

DR. W. S. LONG, of Haddonfield, was married last week to Miss Florence Roe, of Woodbury.

DR. TULLEDGE has left the milky ways of Conshohocken for the wider fields of Philadelphia.

DR. JOHN D. WARE, of the Cook County Hospital, Chicago, has returned from his summer vacation.

DR. DA COSTA has purchased the "Ashewood" mansion at Villanova, and is greatly improving it.

DR. HENRY LEFFMANN gave a Health Talk at the Y. M. C. A., October 2, illustrated with a stereopticon.

PROF. J. M. MAISCH delivered the opening address at the Philadelphia College of Pharmacy, October 1.

DR. H. C. FULLER has tired of the monotony of Jersey Shore, and erected his tent at Mahanoy City.

IF THE EARTH were an absolutely round ball it would be covered with water to the depth of 10,000 feet.

THE introductory address at Jefferson Medical College was delivered, on October 1, by Prof. W. W. Keen.

THE wife of Dr. Dostaler, of Maskinonge, Quebec, was struck by a train and instantly killed, last Wednesday.

DR. D. P. VER VALEN, of Philadelphia, was married, on October 2, to Miss Anna L. Lewis, of West Chester.

THE Bedford Street Mission has closed its baths for the season, having had 30,672 bathers during the summer.

DR. AND MRS. LOUIS STARR are back from the Adirondacks, and are in their pretty house on Rittenhouse square.

DR. JOHN A. FRITCHEY, Mayor of Harrisburg, has declined the nomination for Congress in the Fourteenth District.

THE State Senatorship of Montgomery county appears to be between Dr. Markley and Dr. Todd. Hobson's choice.

DR. A. VICTORIA SCOTT, of the National Women's Health Association, lectured on Poisons in Drinking Water, last week.

DR. J. WILLIAM WHITE has returned from his European trip and is in his city residence on South Rittenhouse square.

DR. W. P. HOWELL, of Philadelphia, is supplying Dr. Gillow's place, as resident at the Pennsylvania Hospital, temporarily.

DR. G. I. CULLEN has assumed the editorial chair of the Cincinnati *Medical Journal.* We wish him success in his undertaking.

MEDICAL students should notice the numerous attractions for young men at the Y. M. C. A., corner Fifteenth and Chestnut streets.

THE Rev. John A. Dowie, President of the American Divine Healing Association, is running a mission in the First M. E. Church of Chicago.

ONE of the severest tests of an intelligent gentleman is to sit and listen patiently and politely to the advice of a d—d fool.—*Clarksville* (Tex.) *Enterprise.*

A NUMBER of the guests at a Trenton party were taken violently ill; canned lobster getting the blame. Dr. Horace G. Wetherill was among the victims.

DR. SABA E. FOWLER, under direction of the National Woman's Health Association, delivered a lecture on The Natural History of Disease, October 1.

WE are not yet done with His Satanic Majesty, La Grippe. Just listen to the squealing of life insurance stockholders, as their dividends are cut into with wide swathes.

PROF. GEO. A. PIERSOL delivered the opening address at the University of Pennsylvania, October 1. The medical class on the opening day numbered over five hundred.

DR. GEO. J. NEWGARDEN, Resident at the Philadelphia Hospital, has resigned in order to accept the position of medical examiner at the Pension Office in Washington.

AN epidemic of dysentery prevails in Sussex county, New Jersey, with many deaths. The disease is said to have originated from a filthy pen where hundreds of hogs are kept.

THE Pennsylvania Board of Charities have sent a letter to the officers of the Lancaster county prison condemning that institution as unfit to be used for jail purposes.

DRS. E. M. GREEN and W. O. SEMPLE, of Easton, are now delighting their Easton friends with the strange and thrilling experience of their tour in the wilds of Europe.

DR. MCGONEGAL, a homœopathist of New York city, has been convicted of manslaughter in the first degree, for causing the death of Annie Goodwin by criminal malpractice.

BETWEEN eighty and ninety is the number of this year's Freshman's class in the college department of the University of Pennsylvania. Last year's class was somewhat larger.

SEVERAL cases of leprosy have, it is reported, been discovered in Englishtown, Cape Breton Island. The victims are said to have been in constant association with the other inhabitants.

THE celebration of the crystal wedding of Dr. and Mrs. T. H. Andrews, that was to take place next month, has been postponed, owing to the death of Mrs. Walter George Smith.

THE Flower, Fruit, and Ice Mission held its Sixteenth Annual Meeting October 1. During the season 13,542 bouquets were distributed to the hospitals, and $684 were expended for ice.

DR. WICKERSHAM, Health Commissioner of Chicago, has ordered that no Inspector of his department shall vaccinate any one on the leg in future without special instructions. He says it's a foolish freak of girls that he will not encourage.

A CORONER'S jury, after wrestling with Dr. Formad's chirography, brought in a verdict of death by being knocked down and shocked. Death was due to shock, is the probable rendering.

THE Societè d'Hygiene publishes a paper by Pietra Santa, strongly advocating the removal of the prohibition of American pork, which he pronounces a cheap and wholesome article of food.

CHICAGO is said to have organized a company with $20,000,000 capital, to construct and operate a line of air-ships. They will carry cars the size of a Pullman, accomodating fifty passengers each.

A PATIENT in the University Hospital, suffering from an aneurism In his left leg, is now undergoing the tedious but very successful treatment of cure by digital pressure, at the hands of Dr. J. William White, the resident staff, and relays of medical students.

AN artificial musk has made its appearance, a white, crystalline body with the characteristic odor. It is, unfortunately, almost as costly as the real Tonquin musk. Mr. F. E. Morgan, of Walnut street, below Seventeenth street, Philadelphia, has a specimen.

THIS is the refrain of a song sung by two hundred and fifty Wellesley College girls, who nearly raised the roof, the other day:

Life is all a grind;
Yes, all a grind
'Tis to my mind;
Though many joys some find,
Yet life is all a grind.

A NEW source of lead poisoning has been discovered in Chicago. It seems that millers are in the habit of branding their flour-sacks with heavy blotches of paint, which soaks through the cloth and into the flour.

DR. ROBERT A. SANDS was married to Miss Kate Van Valkenberg last week. Among the guests were Drs. Fordyce Barker, J. W. McLain, D. M. Stimson, Willard Parker, H. A. Griffin, G. W. Bratenahl, and several other physicians.

MINNEAPOLIS had 249 deaths in August; corresponding to an annual rate of 14.94 per 1,000. Considering that this was in summer, with 35 deaths from cholera infantum, 44 from gastro-enteritis, and 22 from dysentery, the rate is exceedingly low.

CAN'T SUIT EVERYBODY.—"Why are you and Dr. Bronson on the outs?"

"You know my rich uncle George?"

"Yes."

"He was at the point of death and Bronson saved him."

PENNSYLVANIA EYE, EAR, AND THROAT INFIRMARY, at Thirteenth and Chestnut streets, treated, during September: New eye patients, 228; ear patients, 94; throat patients, 19; total, 341. Eye patients made 1,167 visits; ear patients 844, and throat patients 221.

DR. JOSEPH LEIDY, JR., of the Pennsylvania Hospital staff, has returned from a trip through Europe. He says he had more trouble in getting in and out of Russia than he had in any other European country, and had to show his passport to almost every one he came in contact with.

WHAT wonderful progress is made in medicine nowadays? In the *Bulletin Medical* a prescription is given of sulphur and cream of tartar for constipation; while, in the *Indian Medical Gazette*, a contributor gravely indites a formula for calomel and jalap for the same purpose.

THE Bayard Taylor Annex School, at Fifth and Tioga streets, Philadelphia, has been closed to prevent the spread of diphtheria among the pupils; a child living with the janitress in the building having died of that disease. The building has been fumigated, and was reopened this week.

DR. MOFFETT, of Fifth and Venango streets, Philadelphia, deserves great credit for the prompt action he took in counteracting the effects of the laudanum drunk by John Reilly, a young man living at Lawrence and Venango streets, who purchased the same of the doctor at his drug-store.

HARRY W. SHEETZ has just been tried and convicted of putting to a frightful use his power as a mesmerist over a Miss Cookenbach, who made the startling statement that she had been hypnotized by Sheetz three times, and compelled to live with him twice as his wife and once as his daughter.

CHILDREN'S HOSPITAL OF THE MARY J. DREXEL HOME, August 23 to September 27: Patients in hospital August 23, 28; admitted since, 30; discharged cured and improved, 26; died, 2; remaining, 30. Accident cases, 9; free patients, 22. In the dispensary, 582 cases were treated: Eye clinic, 93; prescriptions, 267.

THE University of Michigan, in Ann Arbor, has opened with the largest showing ever made in its history. This is much to the surprise of the officials, as the required course in the medical department is four years, instead of three. Everything points to over a hundred gain for this year.

A CHICAGO jury has just found that a "child came to its death from suffocation, produced by a female cat inhaling her breath while in her cradle." This was in accordance with Dr. Strzyzewski's testimony. As the cat was found lying directly across the baby's face, the child was probably suffocated.

THE Mutual Medical Aid and Beneficial Society of Pennsylvania is about being organized. It has for its object the furnishing to its members medical attendance and pecuniary relief in case of sickness, accident, or death; benefits being obtained from weekly or monthly dues collected from the members.

SURGEON-MAJOR HARRIS, of Simla, India, has devised a process for removing the emetine from ipecacuanha, leaving the powdered root otherwise unaltered. It is thought that the curative virtues of the drug in dysentery are retained, without the attendant nausea, and a clinical trial is being made, with promise of success.

AT the annual meeting of the trustees of the State Hospital for the Insane the following officers were chosen: President, C. H. Stinson; Dr. E. G. Martin, of Allentown, Secretary, and Treasurer Bradley were also re-elected. Dr. Lillian S. Welsh, of Columbia, was elected an assistant female physician, to succeed Dr. Quindora McQuaide, resigned.

Not being a woman we suppose our opinion on woman's books is not of much consequence; but we nevertheless feel compelled to say that the October number of *The Home-Maker* is simply charming, from the first page to the last. Jenny June is the present editor, and subscriptions can be sent to the publishers at 44 East Fourteenth street, New York City.

RUSH MEDICAL COLLEGE, of Chicago, opened on September 30. Prof. J. H. Etheridge gave the address. He demonstrated his ability to smite the spike on the mathematical center of its cranial extremity by remarking that there were no easy spots in the life of a doctor. The class numbers about five hundred, nearly one hundred more than at the beginning of last term.

AT the opening exercises of the Philadelphia Dental College, Cherry street, below Eighteenth, addresses were delivered by Profs. James E. Garretson, E. E. Montgomery, J. Foster Flagg, S. H. Guilford, Henry I. Dorr, Dr. James W. White, editor of the *Dental Cosmos*, and others. There was a large attendance of students, both of the Medical and the Dental Colleges.

ONE of Reed & Carnrick's extensive factories at Goshen, N. Y., was destroyed by fire on the 10th inst. This factory was devoted wholly to the production of their Soluble Food and Lacto-Preparata, and contained extensive and valuable machinery. They had considerable stock of these Foods at their New York office, and consequently there will be no delay in filling orders. The factory will be at once rebuilt three times the size of the one burned, with machinery correspondingly enlarged.—*Dietetic Gazette.*

SEI-I-KWAI reports that between July 3 and 18, there were 1,927 cases of cholera at Nagasaki, and 1,029 deaths. Tokyo, with a population of 1,629,820, reported, in four weeks of December, 1889, deaths numbering 2,254—a rate of 18.07 per 1,000. The principal causes of death were meningitis, apoplexy, phthisis, and gastritis; followed by old age, pneumonia, and infantile convulsions.

DIPHTHERIA has broken out in the Good Intent School in Newton township, Bucks county, Pa. Dr. E. H. Doan examined the building and found the drainage pipe from the washing sink stopped up, and much dampness and decay in the cellar. Repairs were made and the school room disinfected and closed for a few days. When opened again most of the scholars were afraid to come back.

QUINOLINEPARAMETHENYLBENZENYLAZOXIMEPARACARBOXYLIC ACID is *Quinolineparamethenyluramidoxime and phthalic anhydride* melted together.

All this to the vulgar mind seems but a circumlocutory and pleonastic cycle of superfluous hyperscientific sonorosity circumscribing an atom of chemical ideality, lost in a verbal profundity.

—*Medical Mirror.*

THERE are a few things that the fair sex are supposed to know far more about than the men do; but sometimes this proves to be a mistake. A writer in the *Covert Medical News* tells of being sent for in hot haste to attend a lady in confinement. The usual inquiries were put, showing that there were no indications of parturition, except a conviction on the lady's part that her time was up. Examination revealed the further unimportant fact that she wasn't even pregnant.

A DOUBLE-HEADED snake of the moccasin variety has just been brought to Galena, Ill., by a party of fishermen, who killed the monster near the water's edge of the cut-off, about three miles distance from the city. Its length was little short of five feet, and its circumference around the thickest part of its body being eight inches. The kind of bait used by this party is not advertised in the columns of THE TIMES AND REGISTER.

THE J. M. Da Costa Society held its first meeting of the season at the office of Dr. Ludwig Loeb, 889 North Sixth street. Dr. Loeb read a paper on Nephritis, and Mr. J. Schamberg presented on the microscope several interesting pathological specimens illustrating the morbid changes. The next meeting of the society will be held at the office of Dr. Dillon Drake, 925 Pine street. Papers will be read by Drs. Dillon Drake and Carl Weiland, on Croup and Diphtheria.

THE report of the State Board of Health as to the number of registered medical practitioners in Pennsylvania has just been issued by the State Board of Health. There are 9,318 practitioners, of whom 641 are of foreign birth. Every nation, with the exceptian of Spain, is represented in this State's medical practitioners. In Bradford county, the law requiring registration seems to have been neglected, but two physicians being registered. This gives 17,464 persons to each physician. This condition also exists in Lehigh county, where but twelve physicians were reported, making 5,497 persons to each one. In Forest county the largest number of registered physicians can be found in proportion to the population.

THE *London Spectator* contains an account of Mr. E. T. Chaplin, who hypnotized a laying hen, which, without any predisposition in that direction, was made to sit on a sitting of eggs until seven of them were hatched into "healthy, happy little chickens." Well, when hypnotism has advanced far enough so that an egg may be hypnotized into a chicken without the offices of a sitting hen, then we will begin to see some of the practical worth of this mental phenomenon.—*Sanitary News.*

THE wholesale druggists in convention assembled elected the following officers for next year: Daniel Stewart, of Indianapolis, Ind., President; R. W. Powers, of Richmond, Va., Robert Shoemaker, of Philadelphia, T. F. Main, of New York, and E. C. Frisby, of Cleveland, O., Vice-Presidents; S. M. Strong, of Cleveland, O., Treasurer, and A. B. Merriam, of Minneapolis, Minn., Secretary. They also resolved that they never, no never, would sell the retailer less than a quarter dozen at wholesale prices.

A PECULIAR accident occurred in the establishment of Messrs. William H. Hoskins & Co.'s stationery establishment, Chestnut street, Philadelphia, by which Miss Mary Armstrong nearly lost her life. Her long hair became caught in a vertical shaft, and in an instant she was whirled around over one hundred times before the machinery could be stopped, when it was found that she had sustained a fracture to one of her hips, and that her scalp was almost torn off. She was removed to the Pennsylvania Hospital.

A PARISIAN lady, Miss de Broen, is conducting a medical mission in Belleville that is without a parallel in the history of medicine or religion. The little iron chapel-like building is built on the spot where a number of communists were shot down after the peace of the Franco-Prussian war had been proclaimed. The patients assemble in the pretty little chapel, and while waiting their turn to enter the adjoining dispensary, listen to sweet music played on the organ by a volunteer. Advice and medicine are given by the house physician, and no fee is charged.

"SOMETIMES when a woman loses her waist line and finds it difficult to lace her shoes," says a writer in the Chicago *Inter-Ocean*, "she deserves sympathy, but when she becomes the victim of a banting system she is entitled to pity. Superfluous flesh is a dangerous thing to experiment with; it can be worked down, run down, and even walked down, but to resort to drugs is to lay up a grudge that nature will unquestionably avenge." "'Exercise, exercise, exercise,' should be the stout woman's motto. Don't starve yourself, but diet a little and watch the effect of your food."

THE Northwest Branch of the Y. M. C. A. of Philadelphia have opened a course of Medical Talks, for the Thursday evenings of October, at 1518 Columbia avenue.

The subjects are as follows:

October 2.—"Facts Worth Knowing," by L. Harrison Mettler, M.D.

October 9.—"Physical Exercise," by J. M. Anders, M.D.

October 16.—"The Brain," by H. C. Deaver, M.D.

October 23.—"What to do in Emergencies," by L. Ott, M.D.

October 30.—"The Development of the Human Frame," by T. Ridgway Barker, M.D.

ZELIE BOURRION, the fasting girl of Bourdeilles, in the department of the Dordogne, who endeavored to emulate the feats of Tanner, Succi, and Jacques, has just died at her home. Her constitution was completely shattered after her fast of thirty-three days. When she returned to her cottage, she tried to eat a little, but her stomach was unable to bear the food, and she succumbed in a few days. Her fate will serve as a warning to any persons of her sex and class who may have been tempted by the notoriety which she obtained by her fast to follow in her footsteps.—*Hospital Gazette.*

FROM the *Ledger* we clip the following note concerning one of our old and valued advertisers: "The addition to Henry K. Wampole & Co.'s wholesale drug plant, at 441 Green street, is nearly ready for occupancy. It fronts on Lynd street, back of the old building. It is twenty-two feet wide by fifty feet long, and four stories high, making, with the old structure, a building twenty-two feet wide and one hundred and fifty feet deep. The addition will be supplied with all the latest appliances for preparing the different specialties of the firm. The firm has had to make several enlargements recently."

THE Board of Managers of the Germantown Hospital have just issued an appeal for help. The hospital is growing in importance and its scope of usefulness is increasing. While the yearly expenses of the institution have in the past five years increased nearly twofold, the receipts have not increased in the same ratio; consequently, to meet current expenses, the permanent fund has been drawn upon to the extent of nine thousand dollars. The hospital is free to all, and supported entirely by voluntary contributions. Contributions may be sent to the treasurer, Joseph M. Shoemaker, Drexel Building, or Locust avenue, Germantown.

CHICAGO, having won the World's Fair, must submit to innumerable jokes and jokelets, and unkind predictions of failure, coming from disappointed competitors. We trust that none of our readers will make the mistake of taking these things seriously. Chicago will hold the Fair, and put into it all of that prodigious energy that has made Chicago what she is. If our judgment goes for anything, the World's Fair of 1892 will eclipse everything of the sort that has preceded it. We hope and believe that the Centennial Exposition will be so greatly excelled that foreign visitors can form some adequate conception of the great material advances made by the country since 1876.

WE often have to laugh at the absurb way in which the lay journals get mixed up over medical affairs, but what are we to think of the following, from the *Medical Standard*, of Chicago:

Philadelphia.—There is a row eminently disgraceful to Mayor Fitler, of "Fitler's Rheumatic Remedy" fame, and the State Board of Charities, anent the treatment of the insane in Blockley Almshouse. The mayor has been using the almshouse as a political machine.

There are a few trifling inaccuracies in the item. 1. There is no "row" over the treatment of the insane in Blockley Almshouse. 2. Mayor Fitler is not of "Fitler's Rheumatic Remedy." 3. The Mayor has not been using the almshouse as a political machine. With these exceptions the item is correct. Brother Kiernan had better "verify his references" when he gives Philadelphia news hereafter.

LIVING BY RULE.—Oliver Wendell Holmes thinks that he owes his good health and the retention of his mental vigor in his eighty-first year to the extreme care he has long taken of himself. Never robust, he was still wiry in his earlier and maturer life; but since he reached eighty, his hygienic vigilance is unceasing. The rooms that he daily occupies are equipped with barometers, thermometers, aerometers, every kind of instruments, in short, to prevent his incurring the slightest risk of taking cold. He knows that pneumonia is the most formidable foe of old age, and he is determined to keep it at a distance, if possible. He never gets up until he knows the exact temperature, during winter, or takes his bath without having the water accurately tested. He lives by rule, and the rule is inflexible. His time is scrupulously divided: so much allotted to reading, so much to writing, so much to exercise, so much to recreation. His meals are studies of prudence and digestion. He understands the specific qualities of all ordinary foods, and never departs from the severest discretion in eating.

THE result of seven years' operation of Medical Practice Acts in Minnesota has been to reduce the ratio of physicians to population from 1 to 650 to 1 to 1,250. Hundreds of charlatans have been driven over to Michigan and other unprotected States. In comparing the proportion of physicians in Minnesota to that existing in European countries like France and Italy, it must be borne in mind that, where the population is scattered, the work is far greater than when people are closely packed in thickly populated districts. It is doubtful if one man can attend 1,250 people as easily in Minnesota as he could 3,500 in Italy.

The present law has been in operation for three years, and in that time 205 candidates presented themselves, and 77 of these were rejected. Many other incompetents were doubtless deterred from presenting themselves by the fear of rejection. The Examining Board has conferred a priceless boon upon the citizens of Minnesota, and its appeal for support and co-operation from the physicians of the State should be universally responded to.—*N. W. Lancet.*

CHICAGO MEDICAL COLLEGES.—The medical colleges of the city announce, without exception, a great increase in students this year. They are all now open. They have had prayer and speech in their inauguration ceremonies. They assume an air of dignity and gravity in beginning the year's work. It was said of old that two priests of pagan Rome could not meet without laughing in each other's face. The faculties of these medical colleges must be disposed to follow the pagan priests' example. But they probably do the laughing in private.

For it is well-known that they have received this year, as they have received every year, students who should not have been admitted to the study of medicine, or to the sham which the study of medicine amounts to under the conditions tolerated in these colleges. They have now in their class rooms illiterate men and women whose educational foundation would not fit them for good salesmen or women, or book-keepers, or teachers of the elementary branches of the English language. The professors in these medical schools know this to be true. They are in a conventionalized conspiracy to keep up the fraud solely for the fees, and, indirectly, for the imaginary fame individual colleges are supposed to possess.

It is true that they all now go through the mock

ceremony of requiring certificate of academic education, or, in lieu of it, examination with satisfactory results. *The Herald* would be pleased to receive copies of the examination papers made out by students before admission to any medical college in the city, or authentic proof that a practical test of any nature whatever has been imposed upon applicants as an indispensable condition of matriculation. It is amazing that men who would scorn to make money in commerce dishonestly are willing, or at least passive, while it is made with substantial dishonesty in the pretended medical education of the time, not in Chicago only, but in most of the medical colleges in the country. Of the 700 men and women now studying medicine in Chicago probably not one-fourth have had any general education deserving the name.

—*Chicago Hearld.*

THE following extract from a drug journal we earnestly commend to the physician who votes in societies for higher medical education, and then sends his students to the "cheapest and easiest" college he can find. With a little alteration, the shoe will fit him nicely.

"Gentle reader, come with me now and gaze into yonder modern pharmacy. Behind its polished French plate-glass window, before a tower of marble with silver faucets, we behold a gentleman clad in white, airy clothes, shaking his eggs and phosphating milk, slashing around ice-cream and squeezing lemons so they will go through a straw. Is this a dream? Did not you and I see this man last year, at this and that meeting, clad in broadcloth, adorned with a half-yard of crimson satin badge, delegate of such and such association? Did he not take the meeting by storm with his eloquent appeal for the highest possible scientific education? He insisted on three terms at college, made analytical chemistry mandatory, and counseled the compulsory study of microscopy, so that even the registered assistant could readily tell by his lens whether the specimen before him was a horizontal cut from the Canada snake-root or the head of a family tape-worm. Aye! it is he—a genuine Ph. G. At the meeting, the scientific tribune; at the pharmacy, the temperance bar-keeper. Are you in a mood to answer the question, 'Is Pharmacy a Profession?' Who hallooed 'Rats!' way up in the balcony?"

MEDICO-CHIRURGICAL HOSPITAL.—*Enlargement of the Scope of this Useful Institution.*—Owing to the delay in completing the rebuilding of the Medico-Chirurgical Hospital, the managers have been compelled to provide temporary accommodation for their patients. With this object they have transferred the dispensary service to the college building, and have arranged the rooms previously occupied by the dispensaries into wards for surgical and emergency cases. As an Annex for medical and convalescent cases the property on the southeast corner of Seventeenth and Summer streets has been secured.

This building also contains the matrons' and nurses' apartments, and a resident physician is stationed at each building. The two buildings will accommodate thirty-five patients, and, although they have been open but one week, more than half the beds are occupied.

The necessity of a hospital is shown by the fact that, during the two months when the hospital was closed, a number of accident cases were turned away, and one came in on the day of opening before the beds had been set up. In addition to a number of injuries treated and sent to their houses, three serious cases were taken into the wards, each of which would have been seriously endangered by transferring them to more distant hospitals. The demands on the managers are numerous, and supplies of all kinds are needed. Contributions may be sent to the Annex, Seventeenth and Summer streets. The ambulance is ready for duty at all hours.

THE following articles are affected by the new tariff bill. The first figures give the old tariff, the others the new:

Acetic acid not exceeding 1,047 specific gravity, 1½ cents a pound; 2 cents.
Boracic acid, 5 cents a pound; 4 cents for commercial.
Chromic acid, 10 cents; 15 per cent.
Sulphuric acid, ¼ cent a pound; free.
Tannin, 75 cents; $1.
Carbonate of ammonia, 1¾ cents; 20 per cent.
Muriate of ammonia, ¾ cents; 10 per cent.
Sulphate of ammonia, ½ cent; 20 per cent.
Blue vitriol, 2 cents; 3 cents.
Chloroform, 25 cents a pound; 50 cents.
Sulphuric ether, 40 cents; 50 cents.
Nitrous ether, 25 cents; 30 cents.
Crude glycerine, 1¾ cents; 2 cents.
Refined glycerine, 4½ cents; 5 cents.
Iodoform, $1.50; $2.
Licorice, 5½ cents; 7 cents.
Carbonate of magnesia, 4 cents; 5 cents.
Calcined magnesia, 8 cents; 10 cents.
Epsom salts, 3-10 cent; 12 cents.
Morphia, 50 cents an ounce; $1.
Cod-liver oil, 15 cents a gallon; 25 per cent.
Cottonseed oil, 10 cents; 25 cents.
Croton oil, 30 cents a pound; 50 cents.
Flax or poppy-seed oil, 32 cents a gallon; 25 cents. Poppy-seed oil free.
Olive oil, 25 cents a gallon; 25 per cent.
Peppermint oil, 80 cents a pound; 25 per cent.
Fish oil, 8 cents a gallon; 25 per cent.
Opium containing less than 9 per cent. of morphia and opium prepared for smoking, $12 a pound; $10 a pound. The old law prohibited importation of opium containing less than 9 per cent. morphia; containing more than that, crude, $1 a pound.
Phosphorus, 20 cents; 10 cents.
Caustic, 1 cent; 20 per cent.
Saltpeter, 1 cent; 1½ cents.
Mercurial medicinal preparations, 35 per cent; 50 per cent.
Santonine and salts containing over 80 per cent. of santonine, $2.50 a pound; $3.
Sulphate of soda, $1.25 a ton; 20 per cent.
Strychnine, 40 cents an ounce; 50 cents.
Refined sulphur, $8 a ton; $20.
Flowers of sulphur, $10 a ton; $20.

THE BRANCHES OF THE EDITORIAL PROFESSION.—We clip the following from the Kansas City *Medical Index*, edited by Emory Lamphear, the Universal Specialist of Kansas City, who has some ability, much bad taste, and great energy which is misdirected:

There is more than one branch of the editorial profession. As witness the following conversation:

Stranger: "Ah! If I mistake not this is Dr. Hate, of the *Medical 'Looking-glass,'* is it not?"

Dr. Hate: "Yes, that is my name."

Stranger: "Well—I'm very happy to meet a fellow-journalist."

Dr. Hate: "But really I do not remember you—"

Stranger: "Indeed? Why I'm the man who writes the *patent medicine testimonials* for Merrell's Almanac!"

The cheap wit in the little item quoted can be better understood after the reading of a little incident which occurred at the recent meeting of the Missouri State Medical Society at Excelsior Springs, Mo.

Scene: The Elms. A party of gentlemen engaged in social conversation interrupted by the following:

Emory Lamphear: "Dr. Love, how much did you get for writing the commendatory article for Mellier's Ponca Compound in the last number of the *Mirror?*"

Dr. Love: "Not one cent; however, Mr. Mellier is present, you may ask him."

Mr. Mellier: "Dr. Love received nothing for the article referred to."

Dr. Lamphear: "Dr. Love, that seems odd. An article of that kind could not have appeared in the

Medical Index except for money. I run the *Index* for money."

Dr. Love: "Dr. Lamphear, nothing can appear in the advertising columns of my journal announcing a pharmaceutical product which I know to be objectionable. If I find a compound is of value, having clinical experience, I shall not hesitate to say so, believing the information to be of value to the profession.

"If the article happens to be advertised in my journal and my advertisers are benefited, I am glad, but the commendation will be made, if justified, without reference to whether it represents an advertisement or not.

"No living man ever secured a commendation from me for anything by the payment of money. The suggestion of such a thing, if coming from the proper source, would be resented as an insult.

"The difference between the *Medical Mirror* and the *Medical Index*, from your statement of the case, is that the *Medical Mirror* likes to say kind things in general, and particularly of its friends, even though those friends be advertisers.

"The *Medical Index* rarely has kind words, and none except for money."

Yes, there is more than one branch of the editorial profession.— *Medical Mirror.*

BOTH the Doctor and his wife, Mrs. S. S. Stryker, of Thirty-ninth and Walnut streets, were made quite ill by something they had eaten at the "barn party" of Mrs. Washington A. Roebling, at Trenton, a week ago last Friday. Both, however, have since fully recovered.

THE Protestant Hospital for Insane in Montreal has been formally opened, and thirty persons were admitted up to the end of August. Dr. Burgess, so well and so favorably known in Ontario, was appointed superintendent. He is now in charge of the institution. The *Montreal Medical Journal* expresses the hope that "in a year or so it will rank among the foremost of our American asylums, for the beauty of its surroundings and the good results accomplished."

AMONG the names of those applying for a charter for the National Women's Health Association of America, whose purpose is to teach each other and the public generally the laws in relation to health, may be found those of Drs. Caroline M. Dodson, Mary J. Scarlett Dixon, A. Victoria Scott, Mary Brauson, Harriet S. French, Sarah T. Cohen, Charlotte Y. Olsen, Mary B. Werner, E. Warrington Rockwood, Phila M. Brink, Ella Ridgeway Ziegler, Josephine Van Deusen and Sarah T. Rodgers.

DOCTORS' BILLS.—*Editor of The Herald:* Please inform me: 1. Can a doctor collect a bill if he is called in for a case of poisoning? 2. After doctoring a person in limited circumstances how long do they generally wait for payments? READER.

[1. Of course he can. Doctors don't practice medicine for fun. Isn't he just as much entitled to his fee for saving a man's life as a lawyer is for saving his neck from the gallows? 2. They wait a reasonable time,

"It may be for years
And it may be forever,"

with the hope of getting their reward in the next world. Most people pay the doctor's bill after they have paid the butcher and the tailor and the cigar man and the saloonkeeper. Meanwhile the doctor is expected to live on wind and promises on toast.]

—*Chicago Herald.*

NEW PATENTS, ETC:—

PATENTS ISSUED SEPTEMBER 30, 1890.

Atomizer	R. W. Coffee	Bedford City, Va.
Sulphur candle	C H. Shaw	Brooklyn, N. Y.
Dental engine	E. Thompson	San Francisco, Cal.
Reducing licorice-root, etc., to powder	S B. Rickerson	Toledo, O.
Remedy for asthma	Iselin & Callahan	Riverside, Cal.
Syringe	A. H. & M. G. Collins	Camden, N. J.

TRADE-MARKS ISSUED SEPTEMBER 30, 1890.

Remedy for diseases of the blood, liver and kidneys. (The figure of an eagle and shield, with the words :— "Dullam's Great German Remedy.")	Dullam Bros	Flint, Mich.
Mineral water. (The portrait of the registrant and his fac-simile signature.)	L. Janos	Buda-Pesth, Austria-Hungary.
Insecticide. (The word "Semi-nole")	Rumph & Carlile	Titusville, Pa.
Remedy for piles. (The portrait and signature of the registrant, "James McGarrity.")	J. McGarrity	Montreal, Canada.

LABELS ISSUED SEPTEMBER 30, 1890.

"Tonique-Amer. (de Savoie)"	T. Lamb	Newark, England.
"Depurativo Guardias."	E. Soler	New York, N. Y.

—Charles J. Gooch, *Patent Attorney.*

LOCK BOX 76, WASHINGTON, D. C.

TO CONTRIBUTORS AND CORRSEPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith Notifications news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from September 24, 1890, to October 4, 1890.

In view of the early abandonment of Fort Elliott, Texas, to which post he is at present assigned for station, Major J. P. Kimball Surgeon, is relieved from duty at that post, and will, upon the expiration of his present sick-leave of absence, proceed to Fort Supply, Indian Territory, and report to the commanding officer for duty. S. O. 132, par. 2, Department of the Missouri, September 24, 1890.

In view of the abandonment of Fort Gibson, Indian Territory, to which post he is at present assigned for station, Captain W. O. Owen, Jr., Assistant-Surgeon, is relieved from duty at that post, and will, upon the expiration of his present leave of absence, proceed to Fort Sill, Oklahoma Territory, and report to the commanding officer for duty. S. O. 135, Department of the Missouri, St. Louis, Mo., September 27, 1890.

In view of the abandonment of Fort Crawford, Colo., to which post he is at present assigned for station, Captain J. S. Phillips, Assistant-Surgeon, is relieved from duty at that post, and will, upon the expiration of his present leave of absence, proceed to Fort Logan, Colo., and report to the commanding officer for duty. S. O. 135, par. 1, Department of the Missouri, St. Louis, Mo., September 27, 1890.

By direction of the Secretary of War, leave of absence granted Captain John L. Phillips, Assistant-Surgeon, in Special Orders No. 164, July 16, 1890, from this office, is extended two months. S. O. 228, par. 3, A. G. O., Washington, September 29, 1890.

Leave of absence for one month, to take effect about October 1, 1890, is granted Captain Louis H. Crampton, Assistant-Surgeon (Fort Sheridan, Illinois). S. O. 80, par. 2, Division of the Missouri, September 30, 1890.

PROMOTION.

MORRIS, EDWARD R., Assistant-Surgeon. September 17, 1890, to be Assistant-Surgeon, with the rank of Captain, in accordance with the act of June 23, 1874.

The Times and Register.

Vol. XXI, No. 16. NEW YORK AND PHILADELPHIA, OCTOBER 18, 1890. Whole No. 632.

PAGE

ADDRESS.

THE NEW ERA IN MEDICINE AND ITS DEMANDS UPON THE PROFESSION AND THE COLLEGE. By W. W. Keen, M.D. - - - 349

ADDRESS DELIVERED AT THE OPENING OF THE TENTH ANNUAL WINTER COURSE OF THE MEDICO-CHIRURGICAL COLLEGE OF PHILADELPHIA. By Samuel Wolfe, M.D. 356

THE POLYCLINIC.

MEDICO-CHIRURGICAL COLLEGE:
Diseases of Children. *Hollopeter* - - - - 359
For Clearing the Skin and Tongue. *Hollopeter* - - - - - - - - - - - - - 359
Phenacetine as an Hypnotic, Acetanilide in Children. *Hollopeter* - - - - - - - 359
Fever Mixture for Child One Year Old. *Hollopeter* - - - - - - - - - - - - 360
For Indigestion in Children *Hollopeter* - 360
For Colds in Children. *Hollopeter* - - - 360
For Persistent Vomiting in a Child One Year Old. *Hollopeter* - - - - - - - 360
For Infantile Colic. *Hollopeter* - - - - 360
A Tonic and an Aperient. *Hollopeter* - - 360
For Scabies. *Gans* - - - - - - - - - 360
For Eczema Encrusted. *Gans* - - - - - 360
Digitalis in Heart Disease. *Anders* - - - 360
For Infantile Eczema. *Gans* - - - - - 360
Chronic Cervical Endometritis. *Godfrey* - 360
Dullness upon Percussion. *Anders* - - - 360
Abscess of the Mammary Gland. *Stewart* 360
Introducing a Bougie into the Urethra. *Laplace* - - - - - - - - - - - - - 360
Treatment of External Aneurisms. *Laplace* - - - - - - - - - - - - - - 360

PAGE

Tonics for Persons Leading Sedentary Lives. *Waugh* - - - - - - - - - - 360

EDITORIALS.

THE STUDY OF LATIN - - - - - - - - - 361
MEDICAL ETHICS - - - - - - - - - - 361

ANNOTATIONS.

Dr. Richardson's Work, "The Asclepiad," Dedicated to Dr. Jones, of New Orleans, La. 362
Tubercle Bacillus in Volatile Anæsthetics - 362
Tuberculosis - - - - - - - - - - - - 362

LETTERS TO THE EDITOR.

The Third Plague of Egypt as a Diuretic. *Spivak* - - - - - - - - - - - - - 362
Irritative Action of Zinc Sulpho-carbolate. *Pelton* - - - - - - - - - - - - 363

BOOK NOTICES.

Dust and its Dangers. *Prudden* - - - - - 363
Physical Diagnosis and Practical Urinalysis. *Clark* - - - - - - - - - - - - 363
Epilepsy: Its Pathology and Treatment. *Hare* - - - - - - - - - - - - - - 363

THE MEDICAL DIGEST.

FRENCH NOTES. *Roussel* - - - - - - - 364
The Results of Castration in Women. *Keppler* - - - - - - - - - - - - - 364

PAGE

The Contagion of Puerperal Fever. *Irepant* 364
Digitalis in Diseases of Children - - - - 364
Antiseptic Dentifrices *Vigier* - - - - 364
Treatment of Infantile Eczema. *Le Bulletin Médical* - - - - - - - - - - - 364
ITALIAN TRANSLATIONS. *Hutchinson* - - 365
Origin and Treatment of Heat in Fevers. *Cantani* - - - - - - - - - - - - 365
Local Application for Diphtheria. *La Tribune Médicale* - - - - - - - - - - - 365
Ammonium Mixture. *Pharmaceutical Era*, 365
For Acne, Eczema, etc. *Duhring* - - - - 365
Hair Tonic for Scalp Diseases. *Notes on New Remedies* - - - - - - - - - - - 365
Perspiration of the Feet. *Barrett* - - - - 365
Salve for Hemorrhoids. *Medical Mirror* - 365
For Pruritus *Reynolds* - - - - - - - - 365
Paraldehyde Mixture. *Eccles* - - - - - - 365
Menthol in Pruritus. *Dixie Doctor* - - - 365
For Leucorrhœa *Journ. de Méd. de Paris* - 365
Table Showing the Differential Diagnosis of a Variety of Tumors. *Keen* - - - - - 366
Insolubility of Compressed Tablets. *Arnold* 366
Manslaughter by a Faith Healer - - - - - 366
Uses of Coffee. *The Epicure* - - - - - - 366
New Blood Cells. *Edington* - - - - - 366
Sarcophagy in Scotland *Brit. Med. Jour.* - 367
Practical Asepsis. *Liebreich* - - - - - - 367
Puerperal Eclampsia *Teevan* - - - - - 367
Bromole. *Amer. Pract. and News* - - - - 367

MEDICAL NEWS AND MISCELLANY. 368

ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - 372

NOTES AND ITEMS - - - - - - - iv, xiv

Address.

THE NEW ERA IN MEDICINE AND ITS DEMANDS UPON THE PROFESSION AND THE COLLEGE.[1]

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ON the 8th of October, thirty years ago, I entered the lower lecture-room of the College building for the first time as a medical student, and listened to the Introductory Lecture. It was given by that phenomenal encyclopædia of knowledge, Robley Dunglison, for so many years the Dean and Professor of Physiology in this School. Time has gradually obliterated its then deep impressions, and now three memories alone remain to me. The first is the place where I sat; the second the precept, which has so often since then recurred to my mind in solving the medical problems which have presented themselves to me, that I must not confound the *post hoc* and the *propter hoc*, the sequence with the consequence; and the third was the gracious welcome which that fluent master of English gave to us, the incoming class.

It is my pleasant duty to-night to repeat, after a lapse of so many years, at least the same cordial welcome then extended to me—a welcome to you all, from North and from South, from the Atlantic and the Pacific, and even from far distant foreign shores. Nor is this welcome a merely formal one; it is heartfelt and true. Not only for myself, but on behalf of my colleagues of the Faculty, do I welcome you, as kindly and as earnestly as I possibly can, to the arduous study upon which some of you are about to enter; a welcome, quite as cordial, I also extend to those who have already trodden the thorny path of the first or second year of study, and who have now a better capacity to appreciate what they learn, and a better appreciation of the earnest efforts that will be made by every teacher of the school from the oldest of the Faculty to the latest acquisition among the assistants to the laboratories.

The welcome thus extended is saddened, however, by mournful memories. It is with feelings of deep respect and admiration that I refer, as is proper, to the teacher whose honored place I occupy, whose premature and unexpected death robbed the Jefferson College of one of its brightest ornaments; a man illustrious by his name, and not less honored for his own eminently useful scientific achievements. The warmth of admiration and affection which the older students among you bestowed upon the late Samuel W. Gross, was not ill bestowed, but was well deserved. Professionally he knew but one thing—Surgery. Even from his very entrance on his profession, this was his chosen department, and to it he devoted laborious days and studious nights. As a teacher he was incisive, progressive, well read, versatile, and accomplished. He was no uncertain and hesitating teacher, but gave you, in his own clear-cut and positive way, the best results of the foremost minds of the profession, both of this country and of Europe. Many of you can testify to his devotion to his subject, his students, and his Alma Mater. He sympathized with your joys, and helped you over the rough places with the utmost gladness. Few schools have had two such ornaments in one family as the elder and younger Gross; and in the midst of all the pleasure and hilarity of the opening of the session, it is meet and proper that we should pause a moment to lay a flower on the bier of each.

A moment ago I referred to the time when I myself began the study of medicine. You can scarcely appreciate what the study of medicine then meant, as compared with what it means to-day. About the time that I began, the custom had just ceased for each member of the Faculty to deliver an Introductory Lecture to his course each year. The session

[1] Introductory Address at the opening of the Sixty-sixth Annual Session of the Jefferson Medical College.

began on the second Monday in October, and the entire first week was given up by the Faculty to the daily Introductories, and by the students to more or less of revelry, as might become both their consciences and their purses. In the next week we settled down to greater or less regularity of life. The session continued until the end of February, and not a few men of the first year, like Charles Lamb, made up for coming late by going early. Examination over, the iron gate that used to guard the Tenth street entrance to the College swung heavily to, and was not opened again until the next October.

There were no laboratories. Apart from the seven classical branches there was absolutely no official instruction. No man was required to study physical diagnosis, or minor surgery, or chemistry, or the microscope, either in histology or morbid anatomy; and perhaps not a score of men in any graduating class had ever seen a muscular fiber cell, or striped muscular tissue, or a nerve cell, or a nerve tubule. The fortunate few who, in the offices of private preceptors, had a chance to give a wondering look from time to time through a microscope; to examine the urine for tube casts, or for any crystalline element, were equally small in number. Nor were there more who were ever taught to test the urine for albumin. The only histological reagents were acetic acid for clearing up a specimen, and carmine to color it, and the hand-held razor was the only microtome. There was no laboratory of physiology, no teaching of pathological anatomy, no instruction in pharmacy. Nor could any man properly write his first prescription, unless he had been privately taught by his quiz master or his preceptor. The only clinical instruction was in medicine and surgery, neither obstetrics, gynecology, nor any of the specialties being recognized. Indeed, a specialist was looked at askance, as a very questionable sort of doctor.

The seven months intervening between February and October were presumably spent with one's preceptor at home. How much each student would learn in that time, I leave you to judge as leniently as possible. During the spring and fall, however, there were open a few private lectures from voluntary associations of teachers, some of whom, now occupying honored places, I see about me. But these advantages were limited almost exclusively to the students who lived in the city. The examinations were easy, and for the disabled students an "omnibus" was prepared to carry them to, if not through, the perils of the "Green-room."

Contrast this with the opportunities that you have to-day. Every student has now the opportunity to become versed in bandaging, the application of fracture dressings, and the performance of all the ordinary surgical operations on the cadaver. All of you will have had some practice and careful clinical instruction in physical diagnosis. All of you will have attended lectures on pathology and have made a more or less careful personal study of both normal and diseased structures with the microscope. All of you will have passed through the laboratories of physiology, of materia medica, of experimental therapeutics, of pharmacy, of chemistry, and have studied especially the chemistry of the urine and other secretions and excretions of the body. All of you will have had careful instruction in practical obstetrics, in obstetrical examinations, and gynecological operations. All of you will also have had instruction in diseases of the eye, the ear, the throat, the nose, in electricity, toxicology, orthopedics, diseases of the skin, diseases of children, and insanity, not one of which at that time was officially taught in this or in any other medical college.

This immense change smacks almost of revolution. But there is need of a new and fresh overturning. The last few years have seen such rapid movement and progress in every department of medicine that we stand practically in a "New Era in Medicine," and the new era makes new demands both upon medical colleges and the medical profession to which, if we be blind, we shall be derelict in our duty, both to ourselves and the public.

Let us for a moment take a bird's eye view of these changes. First of all a wholly new department of medical science, Bacteriology, has been created. Rejected at first by most, and only doubtfully and hesitatingly believed in by many, except some prophets of the dawn endowed with finer vision than the rest, it has achieved within the last ten years a positive and now practically unquestioned place in medical science. Its revelation of the causes of many diseases and its explanation of their phenomena are as startling as they are well substantiated. That suppuration and erysipelas, tetanus and leprosy, consumption and cholera are parasitic diseases due to the invasion of the body by various forms of micro-organisms is a discovery of the first importance, and much too near as yet for us to appreciate its far-reaching influence. It has but begun its infant career. It must speedily grow into one of the most weighty of the scientific departments of medicine, and bids fair to revolutionize our practice as much as it has our theories.

The old Materia Medica and Therapeutics have been rewritten within the last few years in the Pharmacology of the present day. The actual daily use of medicine has been marvelously changed of late by experiments made to discover the real physiological and therapeutical action of remedies; their effects upon the heart, the arteries, the brain, the respiration, the kidneys; their medicinal and their toxic doses and effects; and from these facts to deduce a right and rational use of drugs. Besides this the extraordinary number of new drugs and the numberless new methods of their administration, the present scientific use of massage and of electricity in its various forms, the increasing use of Swedish movements, of heat, of cold, of mechanical means for soothing and stimulating nerves and muscles, and for spinal extension are all additions of the last few years.

Allied to this there is virtually a "New Chemistry," not only in the sense in which the term is used by Prof. Cook. Organic chemistry has by its analytic methods given us many of the new drugs already alluded to, and by its synthetical combinations has even produced them in the laboratory instead of waiting for Nature's slow distillation by long growth; and has by its substitution compounds given us different series of remedies of immense value, all built upon a single base.[1]

Chemistry and pharmacology, with physiological physics, embryology, and experimental physiology, have developed a new Physiology.

Even Anatomy, a field of stubble scarce worth a gleaner's searching eye as was supposed by many, has rewarded the industrious toiler by rich and full sheaves. Even in gross anatomy, to name no other, the mapping of the convolutions of the brain, and determining their functions, by Ferrier, Horsley, and

[1] If any one doubt the existence of a new-visaged and promising chemistry and pharmacology, let him only read the recent lectures of Dr. Lauder Brunton, in the British Medical Journal, On the Relation between Chemical Composition and Physiological Action.

others; the study of surface anatomy in its relations to the interior, by Holden; the careful study of the intestinal canal by Treves, have been of immense service: while embryology and histology and comparative anatomy have reformed a large part of the science.

These scientific departments are the foundation upon which are built surgery, medicine, obstetrics, and gynecology, the practical departments of the healing art. These, too, like Samson of old, have burst the withs and ropes of the past and risen up in renewed strength, and have gone forth conquering and to conquer.

In Surgery and Gynecology the effects of experiments upon animals, of bacteriological studies, and of the antiseptic method, have been almost past belief. The mortality of amputations has been reduced from twenty-five to fifty per cent. down to from four per cent. to zero, and compound fractures, instead of yielding a holocaust of fifty to sixty per cent., are now, if rightly treated, scarcely more dangerous than simple fractures. The abdomen, instead of being forbidden ground like the lost Eden, with the peritoneum for its "flaming sword which turned every way to keep the way of the tree of life," might almost be called a playground in which surgeons disport themselves to their heart's content, inventing new operations as children invent new games; not an organ contained in its once sacred interior, or in that of the pelvis, is free from attack, and for the most part, happily, with as great relief to the patient as pride to the surgeon. The brain, till five years ago the most dreaded organ in the body, is now not only freely exposed without serious danger, but portions of it excised, abscesses opened, the ventricles irrigated, and tumors removed. Bones are sawn or wired; joints are opened; the chest is invaded, and the lungs are resected. These and other operations successfully done are witnesses to the new era in general surgery[1] and gynecology, while in each special branch of surgery the same could be shown to be true had I only the time.

In Medicine and Obstetrics the same progress is noted in newer and better treatment of many of the ordinary diseases and the usual obstetric conditions. The diminution of the mortality rates is simply extraordinary; and often the new methods of treatment are as simple and grateful as they are successful. To name but one department of each: Our acquaintance with diseases of the nervous system has grown so rapidly that a text-book of thirty years ago is apt to elbow Galen and Avicenna for sympathy in its neglect, while the mortality of the puerperal state has been reduced by the introduction of antiseptics almost to a vanishing point.

Of the many specialties in medicine I cannot take time to speak, save to note the fact that they all have been created or remodeled within the last twenty years.

In view of these facts, am I not justified in calling this "The New Era in Medical Science?"

It will be the duty, the privilege, and the joy of the teachers in this flourishing and progressive school of medicine to give to you the details of this fascinating medical romance in the course we are now entering upon, and I envy you the privilege of engaging in this study thirty years later than I. I have not used the word "faculty," but "teachers;" first, because I wish to recognize and I wish you to recognize the worth and zeal of the junior teachers associated with us, both in the college and the hospital; younger men who freely give of their time to aid you, and largely for the pure love of science. The best and highest reward that ever comes to them, as to us, or to any mortal, is the inward glow and satisfaction of good work done in scientific research, of an enlargement of the domain of truth, be it ever so little. "I labor less," said Fresnel, "to catch the suffrages of the public than to obtain that inward approval which has always been the sweetest reward of my efforts. Without doubt, in moments of disgust and discouragement, I have often needed the spur of vanity or emolument to excite me to my researches. But all the compliments I have ever received from Arago, de la Place, or Biot, never gave me such large pleasure as the discovery of a theoretic truth or the confirmation of a calculation by experiment."

The word "teacher" also designates us all as members of one of the noblest guilds in the world. For twenty-four years I have also myself glorified in the name and work of a teacher, and desire no better title. It is said that when Agassiz's will was opened it ignored all his other proud titles and began majestically "I, Louis Agassiz, teacher . . ."

The new era in medicine so inadequately described now confronts the profession, and especially you, gentlemen, who are to practice it, and whose lives will be spent, remember, among the glories of the twentieth century, with the now undreamed of progress of that happy time. It confronts you as a mighty master, with uplifted hand, pointing you upward and onward; onward to the laborious but great and splendid work awaiting your touch, and upward to the prizes for the foremost and worthiest. But it makes also its demands, its inexorable demands upon you. Satisfy them you must, or fail.

Let us look for a few minutes at what these demands upon the profession are.

A physician's life consists of three periods; corresponding to those of his preliminary education, his medical college course, and his active life as a practitioner. These may be called the Pre-collegiate, the Collegiate, and the Post-collegiate periods, and I purpose speaking in a plain and practical way of each.

1. The Pre-collegiate period, or that of preliminary training.

The ideal medical college would perhaps insist that this be nothing short of a complete liberal education, such as is given in our American colleges and universities, and it is an encouraging feature of the times that the proportion of such college graduates now in our medical schools is steadily on the increase, and that one of our numerous medical societies is composed wholly of those who have received not only the degree in medicine, but that in arts as well. Native talent and hard work will always tell, but such talent when trained and set at work will accomplish vastly more. But this is a world of imperfections and limitations in which the Utopia of the ideal-best must give place to the cold matter-of-fact attainable-best. Desirable as it might be that all of the profession should have such a complete preliminary training, we all acknowledge it to be impossible, at least at present. But such a preliminary education as would at least fit a man to enter the freshman class at our ordinary colleges before many years past must be, in my opinion, a pre-requisite to the study of so wide, so progressive, so logical, and so exacting a science as medicine as it now exists. If necessary to fit a man to study the ordinary college branches, it would seem *a fortiori* to

[1] I have given in a popular form a fuller account of this Recent Progress of Surgery, in *Harper's Magazine* for Oct., 1889.

be necessary for such technical study. Even this we cannot expect at once. But it must be the goal toward which we must strive. I congratulate you and the Jefferson College most heartily on the inauguration this ye r of an entrance examination—a real, though a moderate one—a beginning that is but a herald, I hope, of more exacting examinations in the future, as thus we grow up to our privileges and opportunities. Moreover I must not forget that I am addressing those who have concluded this first period, and who have already entered, or are about to enter, upon the second. Those of you who have had a complete preliminary training I congratulate, and at the same time I remind you that more is to be expected and exacted from you than from others. Should you pride yourselves upon the privilege and relax your efforts in the least degree, remember that the tortoise once beat the hare, and can do it again.

To those of you that have not had such a preliminary training, the question arises, What shall you do? Recognize honestly the defect and go to work manfully to make up for it just as far and as fast as you can. You can do but little of this, perhaps, during your college course. In the winter you will have no time, and I feel chary of your using your summer holidays for much hard work. But if not now, then so soon as you graduate, when your conspicuous patients—conspicuous by reason of their rarity—leave you plenty of unasked for leisure, then you must begin with zeal to complete such a desirable education. But more of this hereafter.

2. The collegiate period, or that spent in a medical college.

I will not spend time in a repetition of the trite maxims inculcating due diligence, hard work, regular attendance, close attention, and all that. You were once boys who needed mental and possibly even corporal flagellation. But you are past that period, and are now young men. Not that you have outgrown the need for these virtues, but that we take it for granted that you have them and will use them. We have no rules and no roll call for these very reasons. You are placed upon your honor to do your very "level best." "Education," it has been wittily said, "is the only thing in which we try to get the least for our money." It is for you to prove its falsity.

In the brief time you will spend here we can tell you but little of the immense array of facts in medicine. You will learn much it is true; but compared with what you do *not* know, what you *will* know when you graduate will be as nothing. The chief services of a medical college are twofold. First, it will give you the great principles that underlie each department, with the main facts that prove them. But secondly, and if possible even more important, it will give you an impetus in the right direction. The use of a cannon is to compel the ball to follow its proper path. The gun is but a few feet long but the impetus and guidance it gives in those few feet are unalterable. The huge missile follows its course to its goal. If the gun is aimed low its path will be low and its goal will be near; but if the aim be high it will cover miles in its course and triumphantly strike its distant target. Enter then here into the enthusiasm of the place and the time. Catch the scientific spirit pervading the very atmosphere of the place. Let it permeate every fiber of your mental structure. Let it be your meat and drink, your very life. This short period is to give you the "bent," "the set," the "curve" of your whole later professional life. See to it that you use it well.

Remember, however, that while we can "teach," it is you that must "learn." We can but spread the rich feast. It is you who must eat and assimilate it. We give "instruction,' you must transfer it into an "education," and make it an abiding possession. "Pray, Mr. Opie," said a visitor to the artist, "what do you mix your colors with?" "With brains, sir," was the brief but pregnant answer.

But while inculcating all this diligence and enthusiasm let me caution you to see to it that your health does not suffer; not perhaps from too much work, but rather from unwise methods of work. The daily bath and a proper amount of exercise will go far to counteract the bad air of the lecture and dissecting rooms. Get to bed early; then you know you can get up early, which you all so much long for. Study none on Sunday. Being medical students does not release you from the moral and religious duties and pleasures of the Sabbath—the day of rest—here any more than at home; and a complete change in the current of your thoughts is no less refreshing than it is physiological. One of the worst evils of our present system of education is cramming for examination. A reasonable review of bygone lectures is wise and useful, but cramming is quite another thing. It means that you have been lazy and derelict during the winter, and to make up for lost time, you ram and cram your heads full of a mass of unassimilated facts to dole them out parrot-like to the too inquisitive professor. I cannot better present its evils than by quoting from that wise old Grecian Epictetus, for it seems to be a very hoary vice: "It is," says he, "as if sheep after they have been feeding, should present their shepherds with the very grass itself which they had cropped and swallowed to show how much they had eaten, instead of concocting it into wool and milk." Next April, remember, we don't want the "grass," but the "wool and milk."

You will learn the use of many new and valuable instruments: The microscope, otoscope, ophthalmoscope, laryngoscope, and all other "scopes;" the many specula, aural, oral, nasal, vaginal, rectal; many beautiful and useful refinements in chemical reactions and in pathological appearances, all useful as means of diagnosis. You must master them all. They are the tools of your profession. If you miss learning their use now you may never again have the chance. In the remote West, in a small country village in the East, or elsewhere, you will sometimes sorely need them, when you will have no willing professor or quiz master to whom you may appeal. They will help you in a multitude of cases, and often are simply indispensable.

But I want to urge you to do one thing more; to combine with all of our nineteenth-century inventions, eighteenth-century shrewdness of observation, and acute cultivation of the normal, unassisted senses, in order to make up the more perfect doctors of the twentieth century. If you have not read "Spare Hours," by the lovable and accomplished Dr. John Brown, of Edinburgh, the author of "Rab and His Friends," that most charming medical story, you have a treat before you. Some pages are more succulent than others, but there is not a sterile patch among them. In the third series you will find most of the medical papers, and they are bracing reading for a doctor. I know nowhere a stronger plea for this very education of the senses which I wish to urge upon you. As there were heroes before Agamemnon, so eyes and ears existed before oxygen was known or Laennec lived, and our forefathers had sharp eyes, shrewdly hearing ears, and delicate fingers that had

to take the place of the specula and the scopes of our day. "Every fellow," says the blind but knowing master of wood-craft, in Dr. S. Weir Mitchell's last story, "every fellow ought to be blind ten years, and deaf ten more, and then get his eyes and ears. He'd know a heap, I tell you he would."

Medicine is not a deductive science. We do not start from *a priori* principles and reason to conclusions. It is intensely inductive. We collect our facts, the more the better, as increasing numbers diminish the ever possible chances of error, we collate them in orderly sequence, and gradually rise from facts to principles. Hence if our facts are badly observed, our principles are sure to be erroneous.

I am persuaded that the chief source of errors in diagnosis is not want of knowledge, but careless or insufficient examination into the facts of the disease. I have seen a diagnosis of rheumatism of the knee joint, in a case in which lifting the knee two inches from the bed instantly showed the crepitus from a spontaneous fracture following long existing osteomyelitis. I have been called to a case of hemorrhoids which a glance and a touch resolved into an ischiorectal abscess; and I have seen days of uncertainty and groping for a diagnosis cut short by a few taps over the back of the lungs that revealed an unsuspected pneumonia. Had the leg been once lifted, the perineum inspected and touched, the posterior chest examined—two minutes only, but two minutes of exactness—no such errors would have occurred.

The eye must be taught to take in much for which no speculum is needful. The physiognomy of the patient, the modes of expression, whether facial or vocal, spontaneously assumed postures of the body, tremulous or steady movements, the color, the breathing both as to frequency and character; the outlines of the body, normal or abnormal; the exact relations of parts; all these, and a hundred more, all stand with their cup of information filled to the brim for him who will drink. The ear may be aided by the stethoscope, but it must not be trammeled by it. It must be trained to abnormal alertness, and hear every sound, from the normal loud gurgling of the intestines to the faintest suggestion of it while using taxis in a hernia; from the loud tubular breathing of a widespread pneumonia, to the judicious discrimination of the relative respiratory murmur in the apices. The touch, though it can scarcely be educated up to the standard of Laura Bridgman, can give you the needful facts as to hardness, softness, elasticity, resistance, contour, crepitus, and the like, if you will but use it. No instrument can replace it. Let your fingers therefore itch till you have touched and felt every case that by hook or by crook you can lay your hands on. Smell and taste are not seldom called into play, and here at least we can use no artificial helps. Yet they are sorely neglected with all the other senses. The epicure in Juvenal's day could distinguish between an oyster from the Lucrine Lake or from Britain. We could do as much were we to cultivate our natural powers as well. Cultivate these senses largely by a study of your own body. *Haud inexpertus loquor.* The hours I have spent in such study have been among the most remunerative, not only in the facts learned, but in the exact methods acquired, and the fine filing of the senses to a cultivated acuteness.

In all this I would not decry the use of the modern instruments of precision. Their introduction marks the beginning of modern science; when the balance, the yard stick, and the pendulum took the place of vague guessing at weight, length, and time. But, back of all our medical instruments, without which they are almost worthless, are our natural senses; and, if generously cultivated, they will largely replace them. Fifty instruments, though they can help, can never replace the five senses. In mountaineering, the Alpenstock is invaluable as an aid; but it can never take the place of a stout pair of legs.

This careful development of the senses must foster a spirit of exactness in all your work; in the use of instruments of precision as well as of the senses themselves. Science is always hostile to the word "about"—"about three inches long," "about one hundred and one degrees," "about ten days." When it is so easy to use the measure, the thermometer, the calendar, why say "about?" In the history of a case as derived from the patient, it may do very well; but in your own later notes it should never appear. One of the surprising and characteristic differences between most of the laity—even very intelligent men and women—and ourselves, is their inaccurate observation or non-observation of plain facts. This is due solely to the want of training of their natural senses, and is the best argument I can give you for the schooling of the senses.

I am well aware that during your collegiate course you will have only moderate opportunities to use Nature's gifts—in my day we had none at all—and that most I have said will rather apply to your post-collegiate course. But the accurate scientific habit or the shiftless unscientific habit will be begun and largely formed here, and it is generally true that what your habits are when you graduate, such they will be until Time shall administer his last anodyne and you pass into your long sleep.

Given the facts, accurately observed and carefully noted, what then? Then comes the highest art of the physician; the reasoning process by which is evolved the diagnosis, upon which depends his treatment. He must take one plus one and make them into two, a *tertium quid* wholly distinct from either of its constituent factors. And in medicine the two ones often lie far apart. They must be correlated not only in any individual case, but in cases years asunder, by a mental stereoscopic vision, the possession of the few, the envy of the many.

This logical faculty is partly inborn, it is true, and varies in natural strength as much as the natural acuity of vision; but it is also amenable in an immense degree to cultivation. The wider your knowlege the better your reasoning will be. You must at first laboriously toil over the process, as does the tyro in Euclid over each equation in every successive problem, over and over again. But when these steps have become as A, B, C to him, then he begins to leap, and finally, when a master geometer, his "therefore" clears a whole book at a bound. So with you, the halting method of your early days, if carefully purified from its faults and strengthened by constant and watchful repetition, will at length give way to quick perception; the correlated facts soon become as familiar to you as his old friends, X, Y, and Z are to the geometer, and with a mental "therefore," you, as quickly and as accurately, leap to your diagnosis, and thence to your treatment. Painstaking and habitual induction slowly give place to intuition. To the laity it often seems so easy and takes so little time it is hardly worth paying much for. They should learn that it is like the ease of the accomplished athlete, the swordsman, the equestrian. As in a plant, the long roots are hidden; only the brilliant flower is seen.

Of treatment, the last and most important point of

all—the "final cause" of there being any doctors at all—you will hear and see so much that I will only quote Broussais: "The real physician is the one who cures; the observation that does not teach the art of healing is not that of a physician; it is that of a 'naturalist.'" And I add my commentary: "The observation of the naturalist must precede, as it ought to lead up to, the art of the physician."

You will be much tempted to devote yourself to one or two favorite branches, to which you perhaps think you will devote yourself later as specialists, and to neglect others. No greater mistake could be made. Few men follow their early selection of a career. Circumstances compel a change. This collegiate part of your course stands in the same relation to your later professional life that a common school education does to your general education.

Every one must know the three R's whatever he may be, "farmer, lawyer, doctor, chief." So every doctor must know chemistry, though he become a surgeon; the eye, though he practice medicine; the microscope, though he become an obstetrician; obstetrics, though he turn out a pathologist. Each is a strand in the stout medical rope, and without it the rest would be weak and worthless. You must "know something about everything, and everything about something." Every department of medicine must pay tribute to the one you finally select. As Bordeu quotes Iphicrates, the Athenian general, when asked why he was so proud: "Are you a soldier, a captain, an engineer, a spy, a pioneer, a sapper, a miner?" "No," said Iphicrates, "I am none of these, but I command them all."

3. The Post collegiate period, or that of actual practice.

"Commencement" is not inaptly named, for it is the beginning of the work of life. I was not idle as a student, but I am sure that I have labored twice as hard since I have had my coveted sheepskin as I ever did to get it. "In nature," says Emerson, "nothing is ever given away. Everything is bought." For some things we pay dollars, for others, time; for others, hard labor. Time and hard labor are the sure and only currency of the realm of medicine. These alone bring success. And by "success" I do not mean wealth, or influence, or fame, the presidency of this medical society, or a professorship in that medical college. Success is a relative term; related to our sphere in life and our opportunities. There is a dignity in mediocrity, as well as of greatness. The humble country doctor—like the Gideon Gray of Scott's Romance—if he has kept abreast of the times by after study, and has made the most of himself and his opportunities, has achieved true success. Let me now enumerate some of the means needful to this end; especially needful in view of the demands of the new era.

A doctor who takes no medical journal is like the business man who takes no newspaper. Years after graduation he stands just where he did when dubbed an M.D., barring a certain amount of rule of-thumb experience he may have obtained. He is like a mariner who would stick to Fulton's antiquated steamboat instead of an Atlantic liner. The medical newspaper stands in the same relation to medical books, that the daily newspaper does to works on history; the one gives us the current events and thoughts and discoveries of the time, sometimes true, sometimes false; the other consists of the sedimentary deposits, gradually hardening into the rock of well ascertained facts. To keep up with the rapid progress of medical science you must, therefore, first of all take as many medical journals, and also buy as many books as you can afford. Make a note of every paper of importance in an index rerum, or better by a card catalogue, such as is used in all our libraries. Skimp your table and your wardrobe that your mind may be fed and clothed. This is your capital in trade.

Carry with you into practice the habits of accuracy, the healthy use of your senses that you will begin here. Accept all the helps modern science has given and the many others yet to be added to them. Study each case, especially your early ones, till you know them as you know the topography of your own at that time too unfrequented office. One case thoroughly studied will do more to enlarge your knowledge and teach you methods than a score observed in a careless, slovenly manner. Make notes of every case you have, full notes for the important ones, slight for the trivial ones. What would I not give had some one offered me and had I heeded just this one bit of advice! Patients soon come to the man who is interested in each case, studies it thoroughly, and, therefore, as a rule, cures it surely and quickly.

Now, too, will come the time when you can remedy any defects of early education. If you do not know German and French, you should begin to acquire at least a reading knowledge of both, within a week after you have your diploma, possibly even before you get an office. You have conquered a new realm when you have acquired a new language. No medical man at the present day can, by any possibility, afford to be ignorant of at least these two. If he is, he simply must go to the rear. With these I must enter a plea for the sturdy sonorous Latin, and if possible some Greek. Never forget that ours is happily one of the "Learned Professions," and if we would be worthy of the name, some little classical, as well as scientific, learning should shed a halo around it. Not only is it needful for your very first prescription, and for the intelligent appreciation of most modern scientific terms, but it leads to the highest and noblest literature. If you have once tasted of the honey of Hymettus you will hardly be satisfied with the miserable crumbs found in many of the current and much be-thumbed books of the day. A literature that has dominated the world for over twenty centuries has a right to claim some of your time.

Do not shelter yourselves behind the incessant work and endless drives of a "country doctor." I fear that many of our country doctors waste enough time in gossip and profitless discussions of the crops and politics, and what not besides, to make them excellent Latin scholars at least. Even the long drives alone, if rightly used, would suffice to add one or two languages to their literary furnishing. One of the most remarkable medical pictures of the time is that given by Dr. John Brown, of Dr. Adams, of Banchory, a "country doctor" in a secluded Scotch village, with constant hard work on horseback, amid bleak hills and valleys for twenty miles around. Without ever neglecting his work he became one of the most accomplished linguists of his day, and at breakfast was fond of amusing himself by translating an ode of Horace into Greek verse.

A happy distinction has been made between the "Literature of Knowledge" and the "Literature of Power." Our science brings us so constantly into contact with the first that we are apt to neglect the second. Much of the literature of power you will find in Homer and Demosthenes, in Horace and Cicero, in Moliere and Goethe; but for a wide acquaintance with it you must naturally look to our mother tongue—and, happily, you do not look in

vain. Chaucer and Shakespeare, Milton and Macaulay, Tennyson and Thackeray, Whittier and Longfellow, Webster and Irving, and the genial Oliver Wendell Holmes—one whom our own guild ever delights to honor—these will conduct you into the higher realms of thought, where you may soar undisturbed by care. "Some books," says Bacon, "are to be tasted, others to be swallowed, some few to be chewed and digested." Read the books that are to be eaten and assimilated.

I urge this literary culture partly because it will afford endless delight, and broaden and inform the mind. In later life, when you have lost some of the fine enthusiasm of youth; when the years come that bring the philosophic mind, familiarity with such a literature will be a never-failing resource, for it never loses its charm. But I especially urge it because the new era in science demands that you be ready to report your cases, relate your discoveries, and discuss them before an intelligent public. To do this so that you will command a hearing, a good English style is indispensable. Few scientific men speak or write effectively. They are apt to be illogical in their methods, wanting in force in their arguments, discursive and inelegant in their style. If you will make the literature of power your companion, and then will write and then prune mercilessly, you will soon acquire such a command of English as will serve you many a good turn. The secret of Huxley's and of Tyndall's success lies as much in their forceful and elegant English as in their scientific acquisitions.

Beside all these scientific and literary demands, I cannot pass by those personal qualities that the age requires of every gentleman. Cultivate, therefore, neatness of apparel, a courtesy that is so apparent that it is extended to the humblest patient in as large measure as to the rich and influential. Appreciate that yours is not a trade in which to make the most money in the least time, but a generous profession, by which, it is true, you make a living, but also do far more. You give what money cannot pay for, and for which you will often never even ask for any sordid *quid pro quo*. Devotion to duty to the neglect of self, sympathy and succor in the hours of sorrow, cheerfulness that vanquishes despair, and skill that baffles even death itself, these are not to be paid for by money, but by speaking eyes, grateful hearts, and well-cemented, life-long friendship and devotion.

Above all, cultivate that good old virtue, "common sense." It lies back of all your science. It is the bed rock on which all success is based.

Of your moral and religious duties I may add only a word. Medicine has to do with much more than the mere healing of human infirmities and disease. Its investigations carry you far beyond the animal kingdom, away down to the lowest vegetable organisms, which bacteriology has shown to be such important factors in disease; its practice has to do with the health and highest happiness of vast communities, as well as the welfare of each individual, with all his various ties and relations, in one complex social life; and its speculations carry you far above and beyond the hour of death. We assist at the beginning of the earthly life in its frail cradle; we see its very close when we watch the last respiration and feel the last pulse beat. That this is not the "be-all and the end-all" of a human soul, both Holy Writ and our own inner convictions imperiously assert. If we could but discern it, we have really assisted at the beginning of a second and the greater life—the Eternal Life. Mindful, then, of our high calling, we should be thoughtful and religious men, ever asking for the Divine help in our daily round of duties.

When I began writing I had intended to speak at length also of the demand of the new era in medicine upon our medical colleges. Time, however, will only allow of a brief, but most important allusion to it. To this demand the colleges are slowly responding. But the change should be more general, more rapid, and more radical.

It is one of the most healthful signs of the times that it is in the larger and more advanced schools, the very ones that are best equipped as to men, money, buildings, and laboratories, that there exists the greatest unrest and dissatisfaction with present achievements, and the chief reaching forward to better and larger things, and among them stands the Jefferson Medical College. While conservative, she is progressive; "*Nulla vestigia retrorsum*" is her motto. That she is alive to the need of progress and has met it in the past, the contrast I have described between my own student life and yours gives ample proof. That the new era in medicine demands still more she recognizes, and, as you will have seen by the announcement, she again meets the demand. To your joy no less than to mine, for the student-mind is ever alert to notice signs of progress, this year we inaugurate a full and required three years' graded course. Time was when the comparatively narrow field could be reaped in two combined hearty attacks. Even then it was hard work; but now it has become simply impossible. The profession and this college alike recognize it, and accordingly we provide for it. If, with increasing branches of science, and increased demand for a deeper as well as a wider knowledge, a reasonable experience shall, as I believe it will, conclusively show that more is needed, I am persuaded that the Jefferson College will recognize that need, and provide for it in due time.

In connection with this progressive step, I am glad to be able to announce to you that, during my late visit abroad, I had an interview with Mr. Hallett, the courteous and intelligent Secretary of the Conjoint Board of Examination of the Royal College of Physicians of London and the Royal College of Surgeons of England, and that these two colleges have accorded to the diploma of the Jefferson Medical College precisely the same rights and privileges that are accorded to the diploma of the universities of Paris, Berlin, Bologna, and all the best foreign schools.

As an earnest of the progressive disposition of this college, I have also the honor of making to you another announcement. Within a short time, the wise forethought of the Board of Trustees has been well shown in the purchase of a lot eighty-two feet in front on Walnut street, south of the hospital, upon which a new and commodious college building will be erected, an ornament to the city, and a more active center of scientific life. Nor will the old and battered college building be given up to baser uses. Hallowed by the memories of McClellan, Dickson, Mütter, Bache, Pancoast, Dunglison, Gross, and scores and hundreds, yea, even thousands, of earnest teachers and pupils, and remodeled, it will take a new lease of useful life by gathering under its hospitable roof the many well equipped laboratories of the college, all of them the product of the last twenty-five years. This is happy news, especially to the workers in the ill-equipped, insufficient quarters of the past, which yet have been the scenes of persistent, patient, and most useful scientific work.

But to erect a new college building and alter another, and equip the laboratories, will take money, and a deal of money. For this we must appeal largely to the generous sympathies of a community long noted

for its intelligent benevolence. Yet it is an odd fact, to which I call especial attention, that, while to academies, colleges, seminaries, and other institutions of learning, millions have been given, and to hospitals scores of millions, yet, to fit the men who are to serve these very hospitals, to educate the doctors who are to have the health and lives of the whole community in their care, nothing has ever been given until of late. At last we are awakening to the fact that good doctors are as important as good teachers and preachers, and that physical health is no less important than mental development. To erect suitable buildings for an important medical school, and to equip and endow its laboratories and museum, is as much a work of philanthropy, and brings back ultimately to the community as large a return as similar gifts to academic institutions or to hospitals. We have already hospitals and dispensaries, and asylums and homes in excess of the needs of the community. What is needed now is the strengthening and development of the *medical schools* which educate the men who make the hospitals useful; the endowment of laboratories in which original research will continue for all time; researches which will repay for their outlay a thousandfold; and the establishment of scholarships and fellowships, to enable young men whose devotion to a scientific career is hindered and often blighted for want of reasonable pecuniary help. For these innovations and encouragements we now ask money, and the indications are that the community is alive to the need for them. The recent endownment of the Chair of Surgery in the University of Pennsylvania, the erection of the new buildings at Harvard and New York, the establishment of the Carnegie, the Loomis, and the Hoagland laboratories, and especially the magnificent gifts of the Vanderbilt family and of Johns Hopkins at Baltimore—all these are encouraging signs.

The Jefferson now boldly proclaims its work, and asks for similar help. The new era in medicine compels us to enlarge our facilities, and this wider and better instruction will benefit the public at large. To them we appeal confidently, knowing that they will not disregard an appeal founded alike in justice, mercy, and charity.

And the reasons urging on this college to these large and wise advances apply equally to the other medical schools, and to the profession at large. The demands of the new era in medicine will only be complied with when the medical colleges give all the necessary facilities in equipment and in time to study thoroughly every branch of medicine, and the student comes to the college with a suitable preliminary education, avails himself during his college course of the ample means provided there, and after graduation grows into the cultured and experienced doctor by the means and methods I have pointed out.

ADDRESS DELIVERED AT THE OPENING OF THE TENTH ANNUAL WINTER COURSE OF THE MEDICO-CHIRURGICAL COLLEGE OF PHILADELPHIA.

By SAMUEL WOLFE, M.D.,
Professor of Physiology.

GENTLEMEN: This hour may have in it something of expectation. In the formal opening of the main term of an institution of learning, something, possibly much, may depend on the manner. The first step, the primary movement, the initial impression, has often a vast determining influence on subsequent events. You may know that with these thoughts I approach my task with great diffidence, yet hoping for your gracious consideration while I attempt its faithful performance. Is our institution, in the sense of a continuous influence, in the sense of a steady force, ever closed? Is the term "opening" strictly in accord with the tenor and spirit of this occasion? The low and plaintive ripple of the river's stream over a pebbly bottom may not be as majestic as the roaring, dashing current, with its seething volume, but with the same unerring certainty the former, like the latter, finds the sea. While the latter has been quickly gathered from the surface, and is muddy, turbid, unclean, the former represents the filtered products of the hidden springs, and is cool, clear, and pure. The torrent, gathered from the surface, may, by its overflow, sweep from the banks fragile, insecure, and ill founded structures, cleanse the bed of filth and putridity, while it leaves the great trees that have anchored their tap-roots deep in the lower soil freshened and revived. But it is on the placid stream that the boat floats with the more safety, and the regular, smooth current it is that drives the wheel of the mill with the most certain force. So may the thoughts that have silently crystallized while these doors have been closed now flow forth and become greater factors in your education. There will be the brilliant products of the inspiration of the hour, or the lively energies bred purely by the associations of the season.

No, gentlemen, the rhythm that applies to the openings and closings in our college calendar must not, cannot, does not apply to our mental structure. And who are thus concerned? I mean the gentlemen who, for the first time, to-day are with us as matriculates; they who have, during one or two previous terms here, so faithfully pursued their studies; and they who now come, with trembling hope, to the closing year of their course; to the session that will endow them with privileges for which they have so long labored earnestly. I mean this honorable and learned staff of teachers, and this body of men to whom are entrusted the material affairs of this institution. I mean the alumni, whether here or elsewhere to-day; and as much, yea, more than all, I mean those who, by their friendly presence, their kindly support, and their generous encouragement, constitute our patrons and friends. Can it be that the thoughts, the feelings, the labor of all or any of these have been totally disconnected from our institution in the interval between Commencement and Opening Day? And is there not, in this continuance of activity, the very essence of our school? Is it not to this concert and persistence of aim and endeavor that we must look for perpetuation? Though violence and disaster, or time, may crumble and dissipate the structure in which we assemble, so long as this spirit is left the Medico-Chirurgical College will exist. So long the novitiates, the undergraduates, the alumni, the faculty, the trustees, and the patrons will be moved and directed by kindred motives, and the harmony of forces will conduce to such ceaseless progress that, whether in session or not, the institution will be open. But there is yet entire fitness in the custom of approaching the routine duties of the main session in this formal way, and were only my powers to correspond to my opportunity, I would hope to be eminently useful to you on this occasion. Graceful language, elegant diction, and the most delicate wit could not, however, free from arrogance and injustice any appeal to you, my honored colleagues, to add aught of effort or labor to what the past has already promised to the future. It were treason to your trust and kindness for me to impugn

your work already done, or to question your intentions in that which is before you. Neither could I bestow proper tribute to your worth, nor pronounce due compliment to your all pervading zeal. Were such your need or desire, the result of your work would furnish it with far more force than any weak and prosy sentiments I might express. Of our friends, who have honored us with their presence, we have no reason to complain, and a spirit of gratitude and appreciation becomes us far better than any attempt at counsel or advice. There remains, then, but the contingent of the student, and with the mountains of art rising before him, that must be scaled; the caves of science yawning, that must be explored, and the oceans of philosophy rolling, that must be fathomed, it were but merciful to spare him, lest a too sudden application should appal him. But he comes with the ardor and eagerness of youth; with the health and vigor of early manhood, and, moreover, with the expectation of professional discipline and management, as well as with curiosity and anxiety for the solution of the mysteries of science, and the, to him, probably greater enigma of the final trial. To him, then, I may venture a few words of advice as to the course most profitable towards the desired end.

And what is this desired end? Is it simply to gain the certificate which gives you the legal right to register as a practitioner of medicine? If such is the case, you have reason, indeed, to bemoan the loss of the broad privileges of earlier times. Within easy memory not even a diploma was required, and even less than a score of years ago, when such an instrument had become more essential, it was very cheap. Without study or preparation, and for but the merest trifle in the way of money, you might then in this very city have secured your own, and if actuated by prudent foresight, you had seen fit to provide for your children and grandchildren, even though still only prospective, you would hardly have found difficulty. What glorious liberties these which your fathers enjoyed, and how must your feelings fire at the thought of their ruthless sacrifice. To you, if you have no other motive, there can be no gratification in the fact that you are matriculates of a school of medicine, which has no loftier source of pride, than that standard which permits it to appear honorably amongst its most honorable and advanced sister institutions, other than which, thanks to the noble efforts of the leaders in our profession, we now have none among the regular colleges, in this, the medical centre of our great progressive nation.

But I am convinced that no such base views of the requisites for entrance into the profession play any part with you. You are laboring for a position, where no college faculty, no board of examiners, no licensing power shall be the ultimate arbitrator. You want to plead your cause, and get your commission, at the court of your own conscience, where a record of a sufficient season, well spent in strict discipline, and the attainment of thorough culture shall avail. You mean to take your place amongst the honest faithful devotees to professional duty; with the diligent students of scientific medicine. You would scorn to rank with the charlatan and pretender; with those who sneer and scoff at the advancements of the day.

You are not to be misled by the glittering show of success, which all too often seems to emblazon the careers of many such desecrators of the sacred precincts of medicine. You are ambitious to gain rational confidence, not ignorant credulity. You have your models in the Hippocrates, the Harvey, the Hunter, the Rush, the Mott, the Gross, and the Pancoast of the past, and in the Davis, the Leidy, the Agnew of the present. You are awaiting the time when your energies may grapple with the great medical problem of the day, with a force and vigor begotten by close acquaintance with and thorough comprehension of the principles and facts on which their solution rests. You are approaching a period when you expect to justify your patient's trust by the exercise of thoroughly drilled faculties. You are pushing forward into a profession which has in its keeping the key to the solution of some of the most important social and economic questions of the hour; which has rendered, and is destined still farther to contribute to municipalities, commonwealths, and nations, services as noble as ever sprung from mighty martial hosts. You will stand to the individual, in the relation of daily counselor on the most weighty, as well as the most delicate concerns of his existence. You will be to him, under God, the very keeper and dispenser of that existence, and when the hour for him shall come, when he will see your lease of power ended, in his dying gaze, and in his expiring moan, will still be an appeal to you, for your steadying skill, and for your comforting sympathy. Such duties you do not advance on with trifling and thoughtlessness. No! Your are in earnest, and, therefore, I take it, willing to receive suggestions intended to facilitate your progress, and to direct your labor into the most useful channels.

I, of course, presume to be speaking to students in every grade of the curriculum. For such as are availing themselves of the fourth year of instruction, whether as under-graduates or post-graduates, a rich supply of studies is laid down in the roster. The regular methodical pursuit of the full line must not be far deviated from by those who want to make the best of it. It is supposed to rest on the studies of the previous years thoroughly mastered, especially such as are generally regarded as simply fundamental, or not practical, and is, therefore, mainly clinical. It aims to bring specialized medicine before the student in such a way that he may get such a grasp on the whole line as will largely aid his usefulness, and probably greatly conduce to his success in general practice, or that he may make the most enlightened choice of the particular field to which he would confine his work.

Though it may be fairly presumed that the most capable and industrious student may here use up all his available time, yet there arises, also, such a golden opportunity for extraneous studies, that you may need to question whether you should not embrace it. Your residence in a large city, your going in and out at a medical college, your proximity to large museums, hospitals, and scientific institutes, may end with the present course. If you leave these behind, without having well rounded out your knowledge of chemistry, anatomy, biology and pathology, which you can nowhere study as in the laboratory, the dissecting room, and the museum, you will carry a regret with you, that will arise and confront you at every turn of your professional career. If you must sacrifice anything, let it rather be the sight of an occasional capital operation, the demonstration of a brilliant diagnosis, or the building up of a highly scientific formula. Understand me, I do not wish to undervalue these exceedingly important elements in a medical education. I mean rather to note, that a lapse in this direction may be more easily mended from books and practice, than such as pertain to the fundamental sciences. And that nothing will so seriously hinder

and cripple you in your work as practitioners, as the "rustiness" which you so often are referred to, by the active men in the profession, to explain the hesitancy when a point in anatomy, physiology or chemistry arises. I am seriously inclined to explain many of these cases of "rustiness" as congenital, rather than acquired. Let me then, gentlemen, call on you to carefully examine into your own condition at this time, and if you discover such defect, let me advise early operation for its removal. As to the studies laid down for you to occupy this year, I can disparage none, but I think experience teaches that the average practitioner is most freqently deficient in pediatric, dermatology, forensic medicine, mental and nervous diseases and otology. It should hardly be necessary to emphasize the importance of particular attention to the peculiar features of diseases of children, and the special line of management that applies to them, since we are all aware of the large share of the physician's work which they constitute. Never will you feel your helplessness more keenly than when you find yourselves unable to construe the manifestations of disease in these innocent sufferers. Yet had you properly learned to interpret it, they would speak to you in a language that would convey far more truth than do the dissembling statements of the crafty master of his tongue. The impulse which the recent advances in the physiology of the nervous system have given to the study of nervous diseases, has resulted in making that department so attractive that the student will need but little urging to employ all the time he can command in this direction. To stimulate us to the attainment of proficiency in forensic medicine, we need only to regard the tenderness and affection of our neighbors, the lawyers, for us. The kindness and cordiality with which they treat us as witnesses, serves to brighten many a dark and painful hour with the hope that we may soon be called into court. How eagerly then, if only for the mere purpose of reciprocation, and out of a pure respect for their unflinching devotion to truth and veracity, should we cultivate a learning commensurate with their demands upon us, in their immutable pursuit of right and justice. To you who are entering your third year, many of these suggestions seem to me equally applicable, and probably the most urgent advice to press home, is that you should, if possible, avail yourself of our fourth year, and therefore make it in a twelve-month entirely and directly applicable. But that portion which refers to a full and comprehensive study of the primary branches, should not have its application postponed. The need of it can only exist through an inversion of the order which our graded course is intended to establish, and such mistakes as you have made in this direction cannot be too early corrected.

Develop the art that belongs to your calling rationally—out of your scientific knowledge of the materials and principles, with which you must work, and you will enter the profession not only more sound and more cultured, but also more expert and skilful. With the majority of you, I dare say, your school privileges will close with this session. Look well, therefore, to your start, and make the best of your perquisites while they are yours. The best methods and the utmost diligence will still leave enough undone, to call up regret. Beware how you slight, and take no risks that rest on sloth. You, gentlemen of the second year, will weigh in your right hand the theory and in your left the practice of medicine. You will view with delight the nice balance, the strong affinity, the perfect harmony between them. And I know of nothing more useful to recommend to you, than free indulgence in this fascinating pastime. See as you go along the essentiality of one to the other, and as the resources of art reveal themselves, be careful that there exist no breaches in the scientific bulwark behind which they are entrenched. My counsel to your seniors will then but faintly apply to you, when you rise to their grade. You will then have developed a taste for close investigation, a habit of tracing effects to causes, phenomena to determining principles, manifestations to underlying conditions, which will continue to serve you well, not only while you remain here, but after you engage in practice. You will then need no other stimulus than your own inclination to drive you to research and discovery, nor other mandate than that which will arise out of your own mental organization, to herald your conquest and glory.

And you, gentlemen, who to-day are on the threshold of your medical course, will already have gathered what I would have you do. Your eyes need not be closed, nor your ears stopped against the practical points that will continually present themselves. Let them stream in with perfect freedom. Lectures on surgery, practice and obstetrics, and clinical lectures are by no means objectionable; but you must not regard them as the main, or the essential features of your present year. These lie in your anatomy, chemistry, and physiology, and to these you must stand closely and steadfastly. They may grow tedious, and weariness of their methodical and didactic study may drive you to the other more tempting sections. And to recreations of such an exalted type there can be no opposition. But, remember, they are only diversions. Your serious attention, your faithful study, your hard work, your sturdy blows, belong here—here on the groundwork of the superstructure you propose to erect.

There must be no quicksand beneath the foundation wall; every stone must be properly laid and tied in its place; layer must rise on layer, and timbers must be framed and placed. But it were pure folly to attempt to fit in a beautiful piece of stained glass, or a delicately-carved panel, where yet no wall or framework had arisen to hold a casement. It is true, the wise and prudent builder, while the walls are rising, is buying and storing for future use the materials which are to be used in the finish and decoration of his house; but he is careful not to put them where they may impede the earlier processes, or where the integrity or fineness of their structure would be prejudiced while this rough but essential and important work is going on. So you, too, may, and should, glean, and handle, and sort, and polish what you must closely apply and fix at a later time, but always in the intervals of your routine duties, and in such a way that it will neither obtrude itself on your regular work, nor suffer injury or disintegration from the incongruity of its surroundings. You have, as yet, no breaches of neglect and oversight to repair. The less such you create as you proceed, the more reason will you have to rejoice at a later stage. Take the studies laid down in the roster, put there by such as have viewed your needs from the light of long and extensive experience; be sure that you acquire each and all thoroughly; and if, at the end of the year, you may perchance feel that you have not advanced one step towards becoming a practical physician, two years later you may find your opinion overthrown, and will not only be the peer, but the superior of your bright classmate, who has so often awed you by his recitals of his brilliant diagnoses, and begotten your

envy by enumerating his great list of patients. Be neither in too great a hurry to acquire or to apply practice; for rest assured the day will come when you would rather sit on the student's bench than in the professor's chair.

I believe I might, with perfect confidence, call on each individual amongst my colleagues in the Faculty to ratify this, my own personal feeling; and I furthermore believe that every one of them, like myself, would, if there were no secondary considerations, prefer first to sit with the students of anatomy, physiology, and chemistry.

And now, gentlemen, having more or less directly addressed each class, and attempted some general directions that might apply to your mental discipline, I might consider my task finished but for the feeling that, with all these most carefully followed, resulting in a vast amount of theoretical and practical knowledge, you might still be most unworthy of entrance into the profession. For admission here, you "are required to present to the Faculty satisfactory evidence of a good moral character." Still more forcible demands in this direction will be made on you when you present yourself for the confidence of your patients. It is in the very nature of the trust to be imposed upon you that it should not be given to the profligate or debauched. To do your duty properly, you must share the most sacred secrets of patients and families. You will be obliged to decide questions of the most delicate and perplexing nature. You will bear responsibilities demanding unremitting care, long-continued toil, and intense application. Your practice will demand the display of undaunted courage and willing sacrifice. You will find failure in the most scientific prescription and in the most dextrous operation; but never in the exercise of fine force of character. As teachers of medicine, we are not supposed to look specially after you in this way. Your moral discipline will rest on yourselves. Character, at the age which most of you have attained, has taken decided shape, but is still quite flexible. The importance of care in its moulding is therefore at this season particularly incumbent, and the strength of will generally sufficient, and the power of discrimination adequate. You may be reasonably turned over to your own mastery, and, if you do not exercise it, will have but little room to shift the responsibility.

Take high moral ground then; plant yourself firmly on it. Early manhood is a season in which the full responsibilities of life are opening. Our emotions are powerfully dominating; pleasure has a peculiar fascination; desire prompts us to investigate everything; the moral faculties are taxed to their utmost to regulate the conflict between the diversified influences. The battle is inevitable, and must be made when the enemy attacks. The victory is not easy, but can be gained by hard fighting. Stand nobly to your guns, and flinch not till you see the hostile camp routed.

"Let us with caution indulge the supposition that morality can be maintained without religion," was the utterance of no less a man than Washington. This is no sectarian school, and your religious faith will in no manner be submitted to question. You need not, however, be too ready to accept what seems to have become in a large measure a part of public opinion: that science and religion are antagonistic; that profound scientific attainments are procured only along with agnosticism and infidelity. There are still great leaders in the scientific world that have conserved a strong degree of religious faith. I would advise you at least to hold on for the time to what you have. There need be but little doubt that there are here to day men who, in the fullness of time, will pale the lustre of the fame of Darwin, Huxley, Tyndall, and Herbert Spencer; but, even to these, their religious belief need not be for the present a serious hindrance. To say the least, avowed disregard for established religion will come with better grace when their mastery of science has asserted itself; and even then can give them no precedence over such as do not attack it, or even boldly own their continued allegiance. Your Sundays are not occupied here. In a great city like this, many men of powerful intellect and high character freely expound the ground of their faith; to such you may give an hour a week, with no detriment to your educational progress, nor to your social standing. Most, if not all, of you have been objects of pious solicitude on the part of those associated with your early training, and even now there rest on some of you tears of mothers, hardly yet dried, that have welled up out of anxiety and fear for you in this direction. Be careful not rudely to shock such tender sentiment; for life has in it but little so rich and grateful.

But I have said enough; and if I may hope that I have rendered even the feeblest service in guiding your efforts at this important stage in your lives, I am content. I would only add an expression of my interest in you, of my faith in your sincerity, and your disposition to instruction, in extenuation of what might otherwise have seemed presumptive, and a pledge to such future help as your solicitation may call forth, or as may lie in my power to furnish—a pledge in which I faithfully believe all of these, my illustrious colleagues, ready to join.

The Polyclinic.

MEDICO-CHIRURGICAL COLLEGE.

DISEASES OF CHILDREN.

FOR ephemeral fevers, disturbing the child for one or two days, then disappearing, whether associated with teething or gastric trouble, the following combination is of great value:

℞.—Acetanilid . . . . . gr. xviij.
Hydrarg. chlor. mitis. . . . . gr. j.
Sodii bicarb. . . . . gr. xij.
Sacch. lact. . . . . gr. xv.
M.—Ft. chart. No. xii.
Sig. One every two hours until three are taken.

In conjunction with this, or as a preliminary treatment, if the bowels are much constipated, the following aperient should be given:

℞.—Sodii bicarb. . . . . gr. xvj.
Syr. rhei,
Aq. cinnamomi . . . . . āā f℥j.
M.—Sig. ℥j until the bowels are freely moved.
—*Hollopeter.*

℞.—Acidi nitro-muriat. . . . . gtt. xxiv.
Tr. cinch. comp. . . . . f℥j.
Syr. simp. . . . . ℥ij.
M.—Sig. ℥j ter in die.

The above is an excellent formula to use where clearing the skin and tongue and improving the appetite are required.—*Hollopeter.*

Phenacetine acts more as an hypnotic, and is slower in its effects than acetanilide.

Acetanilide always produces profuse diaphoresis in children.

Phenacetine will answer for opium, which children bear so poorly.—*Hollopeter.*

The following is an excellent fever mixture for a child one year old:

℞.—Antipyrine . . . . . gr. viij.
Aq. cinnamomi,
Syr. aurantii cort. . . . . āā fʒj.
M.—Sig. ʒj every two hours until fever subsides.

The antipyrine being soluble, goes into the circulation more rapidly than acetanilide, and so breaks the fever sooner.—*Hollopeter.*

For children whose digestion is greatly impaired, and subject to colic with a tendency to increase in severity, the following will be found valuable:

℞.—Chloroformi . . . . . ♏viij.
Syr. rhei. . . . . fʒj.
M.—Sig. Ten to fifteen drops up to ʒss in a little water.
—*Hollopeter.*

To break up a cold in children, a combination of phenacetine and sugar of milk will be found useful.
—*Hollopeter.*

For persistent vomiting in a child one year old, give the following:

℞.—Hydrarg. chlor. mit. . . . . gr. ss.
Bismuth subnit. . . . . ʒss.
Sacch. lact. . . . . gr. xv.
M.—Ft. chart. No. xii.
Sig. One powder every two hours.

If this fails, give:

℞.—Creasoti (English beechwood). . . gtt. j.
Sacch. lact. . . . . gr. x.
M.—Ft. chart. No. xii.
—*Hollopeter.*

For infantile colic, with alternate cold and hot spells:

℞.—Sodii bromidi,
Sodii bicarb.,
Chloral hydrat. . . . . āā ʒss.
Aq menth. pip. . . . . ʒj.
M.—Sig. Ten drops up to ʒj, every fifteen minutes or half hour until desired effect is obtained.
—*Hollopeter.*

A good combination of a tonic and an aperient is the following, serviceable in cases where there is evidence of a disordered nervous system, attended with atonicity of the intestines:

℞.—Acidi muriatici . . . . . ʒiij.
Strychninæ sulph. . . . . gr. ⅔.
Tr. belladonnæ . . . . . fʒj.
Syr. rhei . . . . . q. s. ad. fʒiij.
M.—Sig. ʒj thrice daily.

The tinct. belladonnæ will act as a "peristaltic persuader," and is well borne by children.
—*Hollopeter.*

FOR SCABIES.

℞.—Lac. sulphuris . . . . . ʒj.
Beta-naphtholi . . . . . gr. x.-ʒj.
Bals. Peru . . . . . ʒj.
Adipis benz. . . . . ʒj.
M.—S. Apply after a hot bath.
—*Gans.*

FOR ECZEMA ENCRUSTED.

℞.—Ol. olivæ,
Ungt. hydrarg. oleat. . . . . āā ʒj.
Ol. cadini . . . . . ʒj.—M.
—*Gans.*

Never give digitalis in heart disease when compensation is perfect, but endeavor to improve nutrition by attention to the *regime* of the case. When you hear a mitral murmur don't give digitalis until subjective symptoms are complained of—*Anders.*

FOR INFANTILE ECZEMA.

℞.—Hydrarg. chlor. mitis. . . . . gr. ij-x.
Acidi carbolici . . . . . gr. ij.
Pulv. marantæ. . . . . ʒj.
Ungt. aquæ rosæ,
Ungt. zinci oxid. benz. . . . . āā ʒss.—M.
—*Gans.*

CHRONIC CERVICAL ENDOMETRITIS.

In the treatment of chronic cervical endometritis, the application of caustic agents should not, as a rule, be employed, for the reason that they irritate and induce congestion of the parts, and, if persisted in, cause the formation of cicatricial tissue, which may in turn give rise to dysmenorrhœa, by diminishing the caliber of the cervical canal, or induce neuralgia by impinging upon nerve filaments. Especially is this the case in the non-parous subject. It is best to dilate the cervical canal with bladed dilators, unless marked sensitiveness of the parts contra-indicates such a procedure. Dilatation allows the free escape of the discharge, and renders applications more effective.

A constant irrigation of hot, medicated water, will add to the ease, effectiveness and safety of the operation.—*Godfrey.*

Remember that where you have consolidation and a consequent dullness upon percussion the pitch of the note is increased. This increase in pitch is often mistaken for increase in resonance.—*Anders.*

In an abscess of the mammary gland, in addition to the breast-pump, the following salve spread on a flannel and applied to the breast, will invariably hasten the drying up of the affected mamma:

℞.—Ext. belladonnæ,
Pulv. camphoræ, ... āā ʒij.
Ung. tabaci. . . . . ʒj.
Cerati simplicis . . . . . q. s.
—*Stewart.*

In introducing a bougie into the urethra disabuse your mind of the idea that the benefit to be gained is from distending the caliber of the urethra. That is not so. In introducing a bougie into the urethra we produce compression, in virtue of which the inflammatory products are resorbed. A bougie in the urethra acts as a compress-bandage does elsewhere.
—*Laplace.*

In the treatment of external aneurisms, Prof. Laplace takes a large cork, hollows it out, so as to fit perfectly upon the tumor. It is held in place by a figure 8 bandage placed upon the limb held in a semi-flexed position. The patient can regulate the pressure to suit himself, complete extension producing the greatest pressure upon the tumor. By this means the pressure is distributed equally around the tumor, the flow of blood is thereby not stopped, but the friction of the resisting walls gives rise to coagulation of the blood, which deposits in fibrinous layers on the walls of the aneurism, thus strengthening it and relieving the patient from the danger of a rupture. This method was suggested to him by observing how nature cured an aneurism of the arch of the aorta.

Tonics administered to persons leading sedentary lives, are worse than useless, unless you can combine with them a proper amount of exercise. Tonics stimulate tissues to greater activity, but of what avail is that if from a lack of oxygen the tissues are prevented from assimilating the food products ingested?
—*Waugh.*

The Times and Register

A Weekly Journal of Medicine and Surgery.

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WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

THE TIMES AND REGISTER,
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THE STUDY OF LATIN.

THE fight against Latin is still being waged, and doubtless will be waged for centuries to come. It is continually cropping up when some strong, well-poised man, endowed with that directness of thought that comes of limited vision, endeavors to sweep away everything which does not bear straight upon the things that occupy him. Locke was such a man; limited in vision, in that he shut out all that came not directly and clearly into his focus; though his limits would have circumscribed the infinity of many men. Schiller possessed the same faculty; Tait is the best living example of it, though every specialist, pure and simple, shows it in some degree. So Locke thought that for the years spent in the acquisition of Latin by the old process of digging out, root by root, could be profitably substituted the use of translations, by which the student, with the same amount of study, could, in a short time, attain a thorough knowledge of the language. This may be so; but we cannot look upon the "interlinear" with the affectionate feeling with which we handle the old Delphinis, with their antique typography, and notes in Latin as difficult to construe as the text of the author. Far from regretting the time spent in unraveling the knotty clauses of Ovid and Sallust, Juvenal, Terence, Lucretius and Tacitus, we *know* the labor was most useful discipline; and believe that no modern scholar can equal those who took it.

To learn a thing quickly and easily is not the *summum bonum* in education, nor is the acquisition of knowledge its sole aim. The training of the mind, strengthening and disciplining its faculties, the development of those powers that will best aid its possessor in the coming struggle for existence, are the true objects of schooling, to which the acquisition of facts is but an incidental factor. The mastery of that tough old antagonist, "*Tigna bina sesquipedalia*," leaves a boy stronger and better for the struggle, although his rendering may not be as smooth as that of the youth who reads off glibly from his "pony." What possible influence can the latter method have in the development of manliness?

In the German gymnasia, students are thoroughly drilled in the classics, while these are omitted in the Real schools. Experience has shown that in the subsequent medical course the students from the latter could not compete with those from the gymnasia.

The demands of the day are not so much for a change in the character of the studies to be pursued, as in a lengthening of the course. In ancient times, very little was required of the youth who was to assume the dignity and bear the burdens of manhood. Simply killing another man was the only requirement among many nations. The age of fourteen marked the passage from childhood in some instances. As the world grows more learned, more crowded, more crafty, the age for the assumption of the virile toga is placed farther from infancy; and although the legal period is the twenty first year, many youths are not really independent of their parents and fairly established on a self-supporting basis for years later.

This is, assuredly, not for the lack of sufficient acquisition of facts. Were it so, there would be some truth in the suggestion that "we waste the best years of a boy's life in teaching him the dead languages, rather than those of modern Europe, which he will have occasion for in after life, or than some really useful subjects, such as modern history and the physical sciences." It is not the want of general information that keeps our boys at their fathers' side until they are twenty-five, but a lack of the wit to use their knowledge. In other words, they must develop their brain power until they can successfully cope with the facts that may be presented for their mental digestion, before they can leave the parental roof with safety.

As this truth becomes appreciated, the post-graduate courses of literary and of medical colleges will be better appreciated. By these there is a practical lengthening of the college courses, and in an admirable form, for they are limited to those who can profit by them, not being in any way obligatory.

MEDICAL ETHICS.

THE physician who refuses to attend a patient who cannot pay his fees is looked upon as mercenary; as not living up to the highest standard of the medical profession. But when we hear that a prominent Philadelphia physician, whose name is familiar to every resident in that city, after the close of a long and useful professional career, left an estate valued at seven dollars, we wonder whether the high standard is worth keeping up. The belief in another world, where his treasures are laid up, becomes a necessity to save the good doctor from the imputation of folly.

It is the wisest policy to speak nothing but good of our neighbors; first, last, and always; no matter how much their conduct justifies us in pursuing the contrary course. If a brother physician behaves ever so shabbily towards us, it is best to let him hear of nothing but kindly words from our lips. There may be in existence a man who can still go about vilifying one who speaks well of him, although we have never met such an one; but he is not at all

likely to find any one to believe him. On the contrary, if we detect our enemy in some glaring professional mistake, and lay bare his culpability to the light of day, sure as fate the time will come when he will have a chance to strike back at us. There was once a young fellow who, in his eagerness to get into practice, behaved very badly towards the writer. The young man had an aged mother to support, and was hard pressed; but we did not know it then. In fact his behavior was so very bad that we determined to pay him back in kind. The chance came. He had evidently been reading Sayre on phimosis, and saw all things through phimosis' glasses. He was called to treat a little boy in a family we attended regularly, found that he had phimosis, and rushed off for his circumcision tools. In vain the mother begged the doctor to look at the child's sore throat and ascertain the cause of the fetid breath. He had seen the phimosis, knew it was there, and was not that the cause, by reflex influence, of every earthly ill from stubbed toes to poverty? Then *we* were called in, and found the child suffering with malignant diphtheria. Nobody could ask a better opportunity; and we regret to say that we used it to the full extent. That young man did not practice extensively in that neighborhood for some time thereafter. But—in the fullness of time he was called in to see a patient of our own, who was suffering with typho-malarial fever, and had a sudden change for the worse. Our young friend had his innings, and used it quite as effectually as we had in the preceding case. We suffered much more, because we had more to lose.

No matter how great the provocation, it pays best in the long run to utter no word, give no hint, expressed or implied, that will go to the discredit of a brother physician; but rather to cover up his mistakes and protect his reputation. With competition as severe as now, and human nature in its present state of depravity, this requires a good deal of self-control to accomplish loyally, with brotherly zeal; but it is well worth the pains it cost. And when one lies down to rest, after the old Adam has been conquered, somehow the sleep is sweeter than if the enemy has been smitten hip and thigh.

Annotations.

DR. BENJAMIN WARD RICHARDSON, F.R.S., of London, England, has dedicated the Sixth Volume of his original work, "The Asclepiad," to Dr. Joseph Jones, of New Orleans, Louisiana, in the following words:

To Joseph Jones, M.D., Professor of Chemistry and Clinical Medicine in the Tulane University of Louisiana: A model student of medicine, always seeking, always finding, always imparting with unwearied industry, new and useful knowledge, to the great Republic of Medical Science and Art, this, the Sixth Volume of "The Asclepiad," is sincerely dedicated.

Dr. Richardson is the most eminent living British writer and authority in experimental therapeutics and practical hygiene. He has devoted his life to the elevation of the medical profession, by his extensive original remarks, and to the alleviation of the ills of humanity, by his works on insanity and hygiene.

DR. S. O. L. POTTER, in a letter to the *Pacific Medical Journal*, express his belief that the microbicide for the tubercle bacillus will be found among the volatile anæsthetics. This was suggested to him by his experience with chloroform vapor as a destroyer of micro-organisms in the antrum. He has found chloroform vapor most deadly to the germs of purulent catarrh in inaccessible cavities, of epidemic coryza, hay fever, and similar affections. He has also made some experiments, which lead him to the conviction that the tubercle bacillus may be destroyed and its victim saved, by the daily inhalation of chloroform, carried on in a way to obviate the danger of accident. Inhalations can be kept up for several hours daily, stopping short of general anæsthesia.

TUBERCULOSIS.

THERE is probably no important chronic disease in which our opinions are more frequently sought, more weighty, and more subject to present and future criticism than tuberculosis. The history and character of the disease especially indicate the necessity for early treatment, and this can only follow early diagnosis. Certain things in it also especially call for positiveness and certainty of diagnosis. In spite of the work of years, from Lænnec to Flint, there is no one sign and no group of signs and symptoms which are absolute. Some uncertainty, therefore, always remains, and in the early and therefore most important cases, we must always be, and often remain for some time, uncertain. These are the golden weeks and months. Now, however, doubt is removed, and in the great majority of even early cases we can know certainly what is present. The cases in which it is necessary to be in doubt for more than a week are few and far between, provided the means at command be used. This brings two great advantages: it permits early treatment, before the establishment of that vicious circle of disturbed nutrition which so interferes with success later; and second, what is of great importance, it places the physician at once in the position of "*I know.*" He becomes a dictator, knowing that he is correct, and that he has in his cabinet the indisputable evidence of it. If there is any disease which equals "female neurasthenia" in its need for such dictatorship, it is tuberculosis.

When the profession realizes more fully, and acts upon these things, more lives will be saved.—T. P.

Letters to the Editor.

THE THIRD PLAGUE OF EGYPT AS A DIURETIC.

A FEW days ago I was called to a patient who suffered for two days from retention of urine. I examined the case, found out the cause, and prescribed, as I thought, the appropriate remedy. I left the patient with a light heart, being sure that *après moi le deluge.*

I returned home later, and found an urgent call to come to that patient. I armed myself with hard and soft catheters, and, *à la courier*, hastened to the house of my patient, where I intended to show off my surgical skill.

I forgot to state that my patient is a Russian by birth, lately arrived in this country by third class (steerage), steamship Lord Gough.

Mounting the stairs, I met the mother of the patient, who informed me in an ecstasy of joy that "Blessed be the Lord, *it* came!" I understood the allusion in a moment, and I answered her salute with a broad smile of contentment and self-elation, which denoted as much as to say, "I knew my infusion of digitalis would do the work for me nobly."

Well, here begins my strange tale. I learned from the patient that an hour after the second dose "*it* did not come," and they sent for me, and "*I* did not come." So they tried a home remedy, and "*it* did come, blessed be the Lord." Of course, I was curious to know what kind of home remedy they used. They were reticent about the matter, and tried to evade my questions. My curiosity was so greatly excited that I insisted. The patient told me that they had inserted into the meatus an "unclean thing." Further information I could not elicit. My curiosity was at a high pitch. I commenced to persuade them on the ground of humanitarian principles—that they must reveal to me this nostrum whereby I might save many a human life, and that they would commit a sin by withholding from the world at large such a remedy, which must be both easily applied and cheaply obtained, as, "blessed be the Lord," unclean things in the city of Philadelphia, considering the state of some streets, can be procured without great effort. After a long series of argumentation, I was solemnly initiated into the mysteries of the Russian folk-cure. The remedy was neither organic nor mineral, not even instrumental; it is not to be found in any work of therapeutics; you may scan the works of surgery in vain. It was what is known in Latin as *pediculus corporis*, an exogenous animal, subject of the Russian Czar; a native of third-class (steerage), steamship Lord Gough; or, to put it in simple English, a *louse* was introduced into the meatus, which brought on the flow, as they tell me, in three minutes.

I was curious to learn whether there are any other remedies in their list of diuretics, and the old woman having become talkative, and seeing my earnestness, told me of many herbs used; and in little children, she informed me, they apply to the prepuce the thin film-like coat that envelopes each layer of the onion, which "brings *it* in torrents."

I was almost overcome by this discovery of the genius of folk-cure.

Reasoning logically, I expect that the rat must be used somewhere as an efficient purgative.

C. D. SPIVAK, M.D.

338 Spruce street, Philadelphia.

IRRITATIVE ACTION OF ZINC SULPHO-CARBOLATE.

AN editorial in THE TIMES AND REGISTER highly extols the sulpho-carbolate of zinc in the summer diarrhœas of children.

In malarial dysentery in an adult I made a trial of it; in four grain doses, dissolved in two ounces of water; but it caused vomiting, and my patient complained that it produced irritation of throat and stomach. Now, how do you give it?

In malarial dysentery I am giving one drop of fld. ext. of ipecac. every hour, until it causes vomiting, and then omit a few doses. The ipecac. treatment is fairly satisfactory.

I am much pleased with THE TIMES AND REGISTER. Perhaps more than with any other medical journal that I have ever taken.

A. M. PELTON, M.D.

ASHBY, TEXAS.

[On several occasions I have had the same irritant results from this salt. I believe it is due to the impurity of the drug. The best I have yet seen is Rosengarten's; and when given with bismuth, this has never given rise to irritation in my hands.—W. F. W.]

Book Notices.

DUST AND ITS DANGERS. By T. MITCHELL PRUDDEN, M.D. G. P. Putnam's Sons, New York and London, 1890. Cloth, 16mo, pp. 111; price, 75 cents.

"This little book has been written with the purpose of informing people, in simple language, what the real danger is of acquiring serious disease—especially consumption—by means of dust-laden air, and how this danger may be avoided."

An important object, and a useful book, which physicians should do their best to introduce into every family of sufficient intelligence to appreciate it.

PHYSICAL DIAGNOSIS AND PRACTICAL URINALYSIS. An Epitome of the Physical Signs of the Heart, Lung, Kidney and Spleen in Health and Disease. Edited by JOHN E. CLARK, M.D., Professor of General Chemistry and Physics in the Detroit College of Medicine. Forty-one Illustrations. Cloth, 12mo, 200 pages; price, postpaid, $1.00. Illustrated Medical Journal Co., Publishers, Detroit, Mich.

In this work the object has been to present a systematic and condensed course of Physical Diagnosis and Urinalysis. The portion on urinalysis consists of two parts, practical and reference. The editor believes there is a demand for a short, definite course of organic chemistry, touching on subjects of every-day interest, such as the analysis of urine, chemical and microscopical; the examination of sputa, bile, blood, bacteria, etc.; methods for the quantitative estimation of the more important urinary constituents, normal and abnormal, such as urea, chlorides, sugar, albumen, etc.

EPILEPSY: Its pathology and treatment. Being an essay to which was awarded a prize of four thousand francs by the Académie Royale de Médécine de Belgique, December 31, 1889. By HOBART AMORY HARE, M.D., etc. Philadelphia and London, F. A. Davis, Publisher, 1890. Cloth, pp. 228; price, $1.25.

Dr. Hare may be denominated the champion essayist of the day. He has great industry, good judgment in making selections, and an easy, graceful manner. The present essay is well planned and admirably executed. The author has devoted much and merited attention to recent investigations, while he does not neglect the classics. We have read the book with continuous interest and admiration, seeing scarcely anything to condemn. In fact, the only criticisms we can make are two very small ones; first, an occasional carelessness in proof-reading, as on page 201, line 21, where a sentence is cut in two by a period; second, a certain juvenility of manner, in the way of positive and inelegant expressions, as on page 202, when the author speaks of "curare, whose physiological action makes it about as fit for the treatment of this disease as so much sawdust." The clause "the drug influenced more favorably still petit mal," is not very well expressed for a prize essay.

AT the annual meeting of the Thirteenth and Fourteenth Ward Organized Charity Association, of Philadelphia, Drs. J. R. Partenheimer, Clara T. Dercum, P. N. K. Schwenk and N. H. Ritter, were elected directors.

The Medical Digest.

FRENCH NOTES.

By A. E. Roussel, M.D.

The Results of Castration in Women (M. Keppler, of Venice).—The author removed the ovaries in forty-six women. He obtained thirty nine complete cures, of which, in the greater number, the results were followed for a number of years. The following are the principal physiological conclusions arrived at:

1. After operations performed for a salpingitis or an inflammatory process, there has never followed a flow of blood from the uterus.

2. The conjugate diameter has become progressively shortened, and more especially so when the woman was young; this shortening may reach three centimeters.

3. The uterus has gradually diminished in volume (from eight centimeters to two in the course of years); the vagina is much shorter and more narrow; its mucous membrane has become more pale and the labia major more slender.

4. The breasts have become atrophied and resemble those of man.

5. The pigmentation of the nipples, of the perineum and of the anus, has disappeared, as well as the pathological pigmentation (chloasma). The skin has become of a remarkable whiteness.

6. The tendency to general *embonpoint* has not increased.

7. There has been no modification in either of the hairs, nor of the voice.

8. The sexual appetite has remained the same, and is, if anything, more marked in those cases where the operation has been performed near the appearance of the menses.

9. The operation is not an obstacle to marriage; three of his patients have married happily some years since.

10. Marriage with a castrated woman is the ideal Malthusian union; the only method of applying to the letter the doctrine of Malthus without placing in danger the health or happiness of those interested.

11. In those women operated during youth for inflammatory affections, we do not notice as a result those numerous troubles which we frequently find in women operated upon for uterine fibroids at a more advanced age.

12. Hemorrhages due to uterine fibroids are favorably influenced by castration, but the menopause never follows immediately afterwards.

13. Women operated upon for uterine fibroids when well advanced in life, completely lose their sexual appetite.

The Contagion of Puerperal Fever.—M. Irepant reports a case of puerperal fever which, according to him, was due to an accouchement in a room and in a bed in which another woman died from the same cause twenty months previously. No attempts at disinfection had been made; the following are the facts:

X., living in a village, married a healthy young woman, who became pregnant and went through a normal confinement. Three days afterwards this woman developed symptoms of the fever, and died seven days afterwards.

A few months afterwards X. married again, a strong healthy girl of twenty years. This woman made use of the same room and bed occupied by the first wife. Ten months after this marriage, and after a normal pregnancy, the woman was delivered by Dr. Moriensalle after an ordinary labor. The child was apparently healthy, but died six or eight days afterwards of an enteritis. On the fourth day the mother developed infectious metritis. Thanks to her strong constitution and the intelligent care of her physician, this woman resisted, fought for three months against this infection, passing through the most varied phenomena of the disease, and finally succumbed to the poison. The second wife had a different physician from the first, and this doctor had not seen a case of puerperal fever for a long time, nor did any exist in the neighborhood.

Digitalis in Diseases of Children.—Digitalis and its preparations alone should be employed in diseases of children to the exclusion of digitaline, which is too active.

1. *Infusion of Leaves of Digitalis.*—Infusion of 5 to 10 centigrammes of the leaves in 150 grammes of water.

2. *Extract of Digitalis.*—Under three years of age, 1 to 2 centigr.; from three to five years, 5 centigr.; five to eight years, 10 centigr.

3. *Syrup of Digitalis.*—One to two teaspoonfuls under two years of age; three to four spoonfuls from six to eight years.

Antiseptic Dentifrices.—Salol and resorcine have been recommended by M. Vigier. They may be prescribed in form of elixir or of powder.

1. *Antiseptic Elixir Dentifrice.*—This is a solution of salol or of resorcine in an elixir:

℞.—Resorcine, Salol	āā	2 grammes.
Elixir dentifrice	100	"

2. *Antiseptic Dentifrice Powder* is obtained by the mixture of the following:

℞.—Resorcine	2	grammes.
Salol	4	"
Pulverized oris	40	"
Pulv. carbonate of lime	8	"
Essence of mint	gtt.	x.

Or, we may use the following powder:

℞.—Pulverized charcoal	10	grammes.
Pulverized cinchonia (Grey), Magnesia	āā 5	"
Resorcine, Salol	āā 1	"
Essence of mint	gtt.	v.

Treatment of Infantile Eczema.—1. *Eczema Intertrigo:* Try and remove the cause—generally an acid diarrhœa—then apply fresh conpresses (solution of boric acid 5 per cent., and water equal parts); or, if there is much weeping of the surface use powder with chalk or oxide of zinc. Insist on great cleanliness.

2. *Eczema of the Head:* If the child is fat, modify its diet; if scrofulous, give cod liver oil with phosphorus, or an arsenical preparation—arsenious acid, 0.005 grammes. Boil with 40 grammes of distilled water. Dose: One teaspoonful each day. Suppress all external cause, then soften the crusts with an oily inunction, such as the following pomade:

℞.—Boric acid	1	gr. 50.
Oxide of zinc	5	grammes.
Vaseline	30	"

In eczema squamosum:

℞.—Calomel	1	gramme.
Balsam of Peru	5	"
Wilson's ointment	30	"

3. *Eczema of the Trunk and Members.*—In the squamous forms of eczema, with infiltration of the skin, rub the parts twice daily with a few drops of oil of cade, then powder with starch or apply vaseline. After from two to four days, bathe the parts with luke-warm, soapy water, and after twenty-four hours recommence the treatment with oil of cade.

Tar should not be employed in the eczema of infants.—*Le Bulletin Médical.*

ITALIAN TRANSLATIONS.

By William F. Hutchinson, M.D.

From *La Riforma Medica.*

Prof. Cantani, of Naples, whose authority as a clinician ranks with the highest, recently made some novel and startling statements regarding the origin and treatment of heat in fevers.

According to him, elevated temperature is not the cause of death, and not a dangerous manifestation in acute infectious diseases. Fever is the expression of organic reaction against microbes which invade the system, and, by the change which it causes in the tissues, renders their multiplication impossible. Moreover, increased combustion favors expulsion of deleterious products. Therefore, high temperature is not the symptom to be attacked, but rather the cause that produces this important reaction. So-called antipyretics have no influence on this cause, but, in decreasing thermogenesis, destroy an important factor in cure, frigorific action of tissues. They are nothing else than poisons. That fever is a powerful agent in destroying micro-organisms is shown by the fact that acute febrile infectious diseases are cured spontaneously, while those in which heat is not a chief symptom are not. Consequently, high fever in a strong patient is less dangerous than a lower degree of heat in a weaker person.

The best mode of using heat depressants is the cold bath or other suitable hydrotherapy, which, while increasing surface heat, increases internal thermogenesis at the same time, and, while refreshing, opposes a strong barrier to farther multiplication of bacteria, the true cause of the disease.

Local Application for Diphtheria.—

℞.—Camphor . . . . . ʒv.
Castor-oil . . . . . fʒiv.
Alcohol . . . . . fʒijss.
Carbolic acid (crystals). . . . . ℈iv.
Tartaric acid . . . . . gr. xvj.

M.—Sig. For local application.

—*La Tribune Médicale.*

Ammonium Mixture.—

℞.—Ammon. salicylat.,
Ammonii carb . . . . . āā gr. v.
Spts. ætheris nitrosi . . . . . ♏xv.
Extracti cocæ fluid. . . . . fʒj.
Glycerin . . . . . fʒj.
Liq. ammon. acetat. . . . q. s. ad. fʒss.

M.—Sig. Give every two to four hours, as indicated.

—*Pharmaceutical Era.*

For Acne, Eczema, Etc.—

℞.—Magnesii sulph. . . . . ʒiij.
Ferri sulph . . . . . gr. viij.
Acidi sulphurici arom. . . . . fʒj.
Aquæ menth. pip. . . . . fʒiv.

Sig. Tablespoonful in cup of water, p. r. n.

This is the famous Mistura ferri acidi, as used by Duhring for acne, eczema, etc., accompanied by constipation and anæmia.—*Medical Mirror.*

Hair Tonic for Scalp Diseases.—

℞.—Sodii sozoiodol 2.0
Aq. destillat. 300.0
Spir. Colonieus 20.0

S. Use as a wash for the hair and scalp.

—*Notes on New Remedies.*

Perspiration of the Feet.—The following is advised by Dr. A. Barrett:

℞.—Plumbi acet . . . . . ʒj.
Acet. destillat. . . . . ʒj.
Sp. vin. methyl. . . . . ʒij.
Aq. . . . . ad ʒxxj.

M. Fiat lotio.

Salve for Hemorrhoids.—The following is an excellent salve for hemorrhoids:

℞.—Cocainæ muriat. . . . . gr. xx.
Morphinæ sulph. . . . . gr. v.
Atropinæ sulph. . . . . gr. iv.
Pulv. tannin . . . . . gr. xx.
Vaseline . . . . . ʒj.
Ol. rosa, q. s.

M.—Sig. Apply after each evacuation of bowels. Of course contents of bowels should be kept in soluble condition.

—*Medical Mirror.*

For Pruritus.—The following formulæ will be found very useful as applications:

℞.—Chloral camph. . . . . ʒij.
Bismuth subnit. . . . . ʒij.
Aquæ rosæ . . . . . ad. ʒiv.

℞.—Acidi hydrocyanici dil.,
Tr. opii . . . . . āā ʒij.
Potassii carb. . . . . ʒij.
Aquæ rosæ . . . . . ad. ʒiv. M.

—Reynolds in *Weekly Med. Review.*

Paraldehyde Mixture.—Probably the best mixture for the administration of this remedy is the following:

℞.—Paraldehyde . . . . . fʒij.
Oil of sweet almond . . . . . fʒij.
Chloroform . . . . . ♏x.
Oil of cinnamon . . . . . ♏ij.

Sig. Mix and take undiluted.

We believe Dr. R. G. Eccles was the first to recommend this mixture.—*Pharmaceutical Era.*

Menthol in Pruritus.—This remedy is better than carbolic acid in itching complaints. Use a solution in alcohol, 3 to 6 per cent., say as follows:

℞.—Menthol . . . . . gr. xxiv.
Spt. vini rectif . . . . . fʒj.

M.—Sig. Apply as directed.

Or, as a lanolin salve:

℞.—Menthol . . . . . gr. xx—xxx.
Lanolin . . . . . ʒj.

M.—Ft. ungt. Sig. Apply.

—*Dixie Doctor.*

For Leucorrhœa.—

℞.—Creolin . . . . . gtt. xxx.
Fl. ext. hydrastis . . . . . fʒijss.

Sig. Two teaspoonfuls in a pint of warm water, to be used for one vaginal injection.

As a urethral injection, the following formula is used:

℞.—Fl. ext. hydrastis. . . . . gtt. xxx.
Creolin . . . . . gtt. x.
Aquæ . . . . . fʒviij.

Sig. Use undiluted, as a urethral injection.

—*Journ. de Méd. de Paris.*

PROF. KEEN gave this table to the Jefferson Medical College class, as of use in making the differential diagnosis of the following varieties of tumors:

ENCEPHALOID.	SCIRRHUS	SARCOMA.	ADENOMA.
1. Soft, elastic, not uniform.	1. Hard and inelastic.	1. May be soft and fluctuating, or hard.	1. Soft and elastic.
2. Rapid growth, large size, adhesions early.	2. Slow growth, small size, late adhesions.	2. Growth irregular, adhesions early.	2. Slow growth, no adhesions.
3. Pain slight and wandering; after ulceration severe and fixed.	3. Pain early, sharp fixed and lancinating.	3. Very little pain until ulceration takes place.	3. Pain very slight and neuralgic; menstrual if tumor affects the breast.
4. Veins enlarged.	4. Veins slightly enlarged.	4. Veins slightly enlarged.	4. Veins normal.
5. Ulcerations deep, foul, undermined and bleeding.	5. Ulceration deep, edges hard and abrupt.	5. Ulceration sooner or later quite deep.	5. No ulceration.
6. Glands involved early.	6. Glands involved late.	6. Rarely, if at all, involved.	6. Glands never involved.
7. Occurs at any age, usually before 45th year.	7. Usually occurs after 40th year.	7. Occurs in adult middle life, 20th to 40th year.	7. Occurs from 20th to 30th year, usually.
8. Occurs most frequently in the breast, testicle and uterus.	8. Breast, uterus, stomach.	8. Connective tissue anywhere.	8. In breast or other glands.
9. Death occurs in from 9 to 12 months.	9. Death in from 9, to 18, to 36 months.	9. Death occurs early or late, simply a matter of time.	9. Never kills.
10. If in breast there is no retraction of nipple.	10. There is retraction of nipple.	10. No retraction of the nipple.	10. No retraction of nipple.
11. Family history is bad.	11. Family history is bad.	11. Family history good.	11. Family history good.

—*Coll. and Clin. Record.*

A FEW months ago Dr. Arnold, of Zug, pointed out that compressed tablets of antipyrine, antifebrin, and other medicaments, sometimes passed the patient's digestive canal unchanged. Referring to his note, the *Schweizerische Wochenschrift für Pharmacie* points out that the drawback can be easily prevented by the manufacturer; it is sufficient to interpose a layer of powdered sugar or tragacanth between the layers of the tablets. The purchaser should always ascertain by experiment whether or not the tablets are soluble in water. If they are not so, they are, of course, useless.

MANSLAUGHTER BY A FAITH HEALER.—The practice of faith healing has received a severe check, if not its death blow, in the city of Toronto. A certain well-known citizen, who had for some time been the subject of diabetes, and had been dieted for it, thought he would give himself the benefit of the newest fashion, and accordingly placed himself in the hands of a Mrs. Stewart, one of the apostles of the new art. Being by her instruction freed from all dietetic restrictions, he speedily died of diabetic coma, and an inquest being held the jury found that "he came by his death through the gross ignorance of Mrs. Stewart, who undertook to cure him of his disease, in not advising him to continue the restricted diet prescribed by his former physician." Mrs. Stewart is consequently now awaiting her trial for manslaughter. We forbear to comment upon a case which is still *sub judice*.

USES OF COFFEE.—It is asserted by men of high professional ability that when the system needs a stimulant, nothing equals a cup of fresh coffee. Those who desire to rescue the drunkard from his cups will find no better substitute for spirits than strong new-made coffee, without milk or sugar. Two ounces of coffee to one pint of boiling water makes a first-class beverage, but the water must be boiling, not merely hot. Bitterness comes from boiling too long. If the coffee required for breakfast be put in a granitized kettle over night, and a pint of cold water be poured over it, it can be heated to just the boiling point, and then set back to prevent further ebullition, when it will be found that while the strength is extracted, its delicate aroma is preserved. As our country consumes nearly ten pounds of coffee per capita, it is a pity not to have it made in the best manner. It is asserted by those who have tried it that malaria and epidemics are avoided by those who drink a cup of hot coffee before venturing into the morning air. Burned on hot coals, it is a disinfectant for a sick-room. By some of our best physicians it is considered a specific in typhoid fever.—*The Epicure.*

NEW BLOOD CELLS.—The latest discovery is that of a new blood cell, by Dr. Alexander Edington, of Edinburgh, a surgeon and bacteriologist of considerable repute, who has devoted much time to the study of the morphology of the blood. This new cell, Dr. Edington calls an "albocyte." It is a spherical, colorless cell, of about one-third the diameter of the ordinary red blood corpuscle, of which it is an early form.

The whole of Dr. Edington's views regarding the blood cells may be summed up as follows:

Starting with white blood corpuscles, he finds that in their earlier life they contain one, or at most two nuclei, which number, after a certain period of development, is increased to four. The discharge of these nuclei from the cell results in the formation of "free," or "daughter" nuclei, of which some go in to the development of fresh white blood corpuscles, while others become multinucleated cells, also allied to white blood corpuscles, but having distinct functions to perform. To this cell the discoverer gives the name of matricyte, and it, after increasing in size, discharges its numerous nuclei, and then forms, what he calls, the new cell—the "albocyte." This gradually enlarges, takes up hæmoglobin, and eventually is transformed into the perfect red blood corpuscle. The arrangement, then, according to Dr. Edington, is: (*a*) The white blood corpuscle; (*b*) the daughter nuclei; (*c*) the matricyte; (*d*) the albocyte; (*e*) the red blood cell; (*f*) the granular bodies called hæmatoblasts.

These latter bodies were named by Hayem, and consist, according to him, of granular matter originating in the white cell. They are concerned, together with the white cell, in the formation of fibrin.

—*Canada Lancet.*

SARCOPHAGY IN SCOTLAND.—When Bruce, the African traveler, first published his anecdotes respecting the customs of the Abyssinian and Nubian tribes, they were listened to with incredulity, and were severely ridiculed by the Grub street writers of the day, and it is told that he had to resort to strong measures to convince a gentleman in Edinburgh that it was possible for a human being to eat raw meat; but no scepticism on that point can exist in Scotland at the present day, for George Muir actually died in the streets of Castle Douglas, on September 26, in consequence of his ravenous partiality for that particular viand. He went into the shop of Messrs. Ballard Brothers, butchers, and got a small piece of raw beef, which he put in his mouth. After leaving the shop he suddenly fell on the pavement, and a medical man who was summoned extracted the piece of raw beef, which weighed three ounces, from the back of his throat; too late, however, for it had choked him. The man seems to have labored under the belief that a hunch of raw meat is an agreeable and restorative titbit. Underdone steaks have often been regarded in the same light, but a semblance of cooking has always hitherto been insisted on.

—*Brit. Med. Jour.*

PRACTICAL ASEPSIS.—*Asepsis of the Hands.*—Frequent washing of the hands, with or without antiseptics, irritates the skin, producing redness and chapping. It is therefore advisable, after washing and drying the hands, to rub them with one of the following pomades, which are recommended by Prof. Liebreich:

1. ℞.—Lanoline	. . . . .	5	grm.
Vanilline	. . . . .	0.01	"
Essence of rose	. . . . .	1	gtt.
2. ℞.—Lanoline	. . . . .	100	grm.
Paraffine	. . . . .	25	"
Vanilline	. . . . .	0.01	"
Essence of rose	. . . . .	1	gtt.

Asepsis of the Sick Room.—Sevestre advises the use of the following solution, which may be sprayed or evaporated by boiling:

℞.—Thymic acid	. . . . .	5	grm.
Carbolic acid	. . . . .	10	"
Alcohol	. . . . .	100	"
Water	. . . . .	885	"

Asepsis of Utensils and Instruments.—It is sufficient to dip utensils and instruments in a boiling solution of carbonate of sodium (30 grm. per litre). The same solution may be used to disinfect sputa and to clean cuspidors and vessels.—*Pharmaceutical Era.*

PUERPERAL ECLAMPSIA.—A New Zealand physician, Henry Teevan, relates, in *The British Medical Journal*, the following cases of puerperal eclampsia, which occurred during the last twelve months:

"H. C., aged thirty-eight years, multipara, about seven months pregnant: convulsions. Treatment by subcutaneous injections of pilocarpin, gr. $\frac{1}{10}$. Inhalations of chloroform, venesection, with no amelioration. Death in nine hours. Premonitory symptom: diarrhœa. No œdema of the extremities. Albumen in urine during the convulsions.

"H. L., aged twenty-six years, primipara, also about seven months pregnant: convulsions. Treatment as above, with no beneficial result. Death in thirteen hours and a half. No premonitory symptoms. Neither of the patients was able to swallow, but a rectal injection of chloral and bromide was administered to the second one. As labor had set in, she was delivered with forceps of a dead fœtus. There was no œdema.

"Mrs. H., primipara, was confined at full time; labor normal. Immediately afterwards she complained of intense occipital pain. Convulsions came on about an hour and a half afterwards. I determined to give opium a trial, as my other cases had ended so badly. Injected her with morphine, gr. $\frac{1}{4}$, and atropine, gr. $\frac{1}{150}$, which had the effect of stopping the convulsions for half an hour. I had just given her a dose of chloral and bromide, gr. xx of each, when another convulsion set in, upon which I again gave a subcutaneous injection of morphine, gr. $\frac{1}{4}$, with the result that she had no further convulsion, and slept the whole day, being roused only to take the chloral and bromide mixture every four hours. Next day she had no recollection of anything after the birth of the child. I attribute the successful result more to the opium than to the mixture. She had premonitory symptoms of diarrhœa and œdema for weeks before the onset of labor."

BROMOLE.—As a surgical dressing after amputations bromole will be found superior to any antiseptic known to the profession. My experience with it is confined to the amputations of fingers and toes, but the results obtained by me were so flattering that I am satisfied it will meet all expectations in the larger operations. The form in which I use it is as follows:

℞.—Bromole	. . . . .	ʒij.
Ol. olivæ.	. . . . .	ʒviij. M.

Cotton-seed oil, or any other kind of fixed oil, may be substituted for the olive oil.

As a dressing for wounds, or foul and indolent ulcers, I generally use an ointment, as follows:

℞.—Bromole.	. . . . .	ʒj.
Ung't. simplicis	. . . . .	ʒj. M.

Or it may be sprinkled on the ulcer in the form of powder, with equally good results.

As a local application in diphtheria this compound produces excellent results when the glycerine solution is applied to the fauces. It immediately stops the foul odor in malignant forms of diphtheria, and destroys the exudation formed on the hardened glands. If the medicine is applied frequently, the indurated glands soften rapidly, and all further exudation of membrane is stopped. The same can be said of its local application in scarlet fever. I prefer this compound to nitrate of silver or any other medicine that I have used.

The formula I use is as follows:

℞.—Bromole.	. . . . .	gr. xx.
Glycerini	. . . . .	ʒj.

M. Sig.—Apply with a probang.

I have also used this compound successfully in croupous and tuberculous laryngitis by means of inhalation, for which I use an ordinary croup kettle; also in capillary bronchitis following measles. I generally put about ten grains of bromole in the kettle.

Internally I have used it in cholera infantum, typhoid fever, and abscess of the lung, the result of which I shall report in a future article. The dose given for internal administration was one-sixteenth to one-fourth of a grain.—*Amer. Pract. and News.*

AN institution has been founded in Paris which is likely to prove a blessing to foreigners who may become ill while sojourning in the gay capital. A Danish lady, Frokur Neilson, is the originator of this plan to supply for the sick trained nurses speaking the principal languages. These nurses will be sent to all parts of France and even to other contries when desired. In connection with the institution is a school for the training of the nurses.

Medical News and Miscellany.

DR. HILT, of the *Ledger*, is an enthusiastic cycler.

DR. HORACE EVANS' estate was appraised at $217,601.48.

GEORGE TABER left $1,000 to the Philadelphia Home for Incurables.

THE contented man is ever so much richer than the rich man is contented.

DR. DAVID D. STEWART'S address is 1231 Walnut street, instead of 1310 Walnut street.

SEVEN Philadelphia dealers in oleomargarine have been sued for selling adulterated butter.

DR. W. P. SNYDER has been nominated for candidate for the Assembly for Chester county's Northern District.

RESIDENTS of Philadelphia's twenty-seventh ward complained to the Board of Health about the Mill Creek nuisance.

THE Medical Profession of Louisiana has again failed with the State legislature in the matter of a law to regulate practice.

SIXTEEN HUNDRED AND EIGHTY-FOUR students of pharmacy were enrolled in the four Italian schools during the past year.

DR. CHARLES L. HUBBELL died suddenly of heart disease on October 6 in his room at the Taconic Inn, Williamstown, Mass.

DR. WILLIAM BOYLE has been appointed Assistant Chief Surgeon, at Atchison, Kas., in the place of Dr. Holland, deceased.

PHYSICIANS do not often have the honor of upsetting thrones, but the doctors attending the King of Holland have just pronounced him unfit to reign.

DR. JAMES KERR was elected a member of the hospital staff of the Baltimore Emergency Hospital, and Mr. H. L. West a member of the Board of Trustees.

IOWA physicians are interested in a dropsical patient who has been tapped one hundred and forty-one times, and goes about the household duties notwithstanding.

PROFESSOR METSCHNIKOFF, of Odessa, the distinguished Russian bacteriologist, has been appointed head of the Pasteur Institute in Paris, under the general direction of M. Pasteur.

AT the opening of the regular session of the Medical Department of the University of the City of New York, September 30, Professor William H. Thomson delivered a lecture on the Medical Aspects of Mental Discipline.

MEDICAL CONGRESS IN RUSSIA.—The fourth congress of the Society of Russian Medical Practitioners will be held at Moscow, the day of meeting being fixed for January 3, 1891. The work is to be done in twelve sections.

DR. JUDSON DALAND read a paper on The Medico-Legal Aspects of Hypnotism at the fifty-first stated meeting of the Medical Jurisprudence Society of Philadelphia, at the hall of the College of Physicians, last Tuesday.

IT is reported that Dr. E. B. Sangree, of the Medico-Chirurgical College, is to be married to Miss Ella Russell, in December. Miss Russell is a step-daughter of Mr. L. H. Hall, a well known business man in New York and Philadelphia.

FAMILIARITY breeds contempt in the case of those whose official duties bring them in contact with lunatics; but the killing of Dr. Lloyd by an escaped patient serves to call attention anew to the folly of disregarding the threats of these persons.

DR. G. B. CLARK, Home Rule Member of Parliament for County Caithness, Scotland, arrived in New York last week. He comes as a representative of the Highland League to inquire into the condition of the crofters who emigrated from Scotland to Manitoba.

PHYSICIANS pay more attention to athletics since massage has demonstrated the curative value of exercise. Among the representatives of the Baltimore Athletic Club to the annual meeting of the Amateur Athletic Union we note the name of Dr. B. M. Hopkinson.

DR. WETHERILL still keeps at his good work of hunting out insane people who are improperly cared for and having them sent to asylums. The last trip revealed two sisters of one family and two brothers of another being kept, in an insane state, by their parents.

THE proceedings of the recent Berlin Congress, which include more than two hundred addresses and discussions, will be published in full in a large work, which will appear in separate parts. It is expected that the first part will be ready in the course of the autumn.

DURING September the Children's Aid Society, 127 South Twelfth street, found situations for forty-five mothers at service, each taking one child with her. There were also twenty-one children placed in private families to board, and eleven were placed in private families on trial.

PROFESSOR CHARLES RICHET states in the *Progrès Medical* that fifteen grains of sulphate of quinine, administered two hours, or four hours at the most, before embarking, will completely free even sensitive subjects from the horrors of sea-sickness. The experiment is well worth trying.

THE Kensington Hospital for Women, of Philadelphia, has purchased the property at 136 Diamond street, and will remove there shortly. When the alterations are completed the entire cost will be about $20,000. Double the present number of patients will be accommodated. Dr. Charles P. Noble was re-elected surgeon-in-chief.

DR. WALTER M. FLEMING, a prominent New York doctor, has been charged by Mrs. Stephani with extortion and grand larceny; in connection with her son's case. Dr. Fleming is one of the committee appointed to investigate the alleged insanity of the young murderer; and is said by Mrs. Stephani to have received over $5,000 for supposed expenses.

THE *Brooklyn Medical Journal* refers in very complimentary terms to Dr. Mattison's plan of treating drug-addiction. The Mattison method originated from clinical studies upon patients treated in his own home; it may be termed the only distinctively American method, and has great advantages over the more primitive methods of Levinstein and Erlenmayer.

At last week's meeting of the Board of City Trusts, Drs. Frank Fisher, Samuel D. Risley, and Edward Jackson were appointed physicians to the Wills Hospital. Some discussion was raised over the confirmation of all the physicians named, who were reported by the Committee on Minor Trusts, but the resolution of the committee was finally adopted.

To smooth out a wrinkled diploma, apply a coating of hot paraffin to the back, and before it is entirely cold smooth out the wrinkles with a common smoothing iron; place the diploma between two clean panes of glass larger than the diploma, and weight it down for several days before replacing in the frame.

—*Meyer Bros. Druggist.*

Medical examiners were on October 10 appointed in the Pension Office as follows: Moor S. Falls, of Louisiana; James B. Hungath, of Kansas; D. M. McPherson, of Arizona; Henry La Motte, of Pennsylvania; Jacob F. Raub, of Pennsylvania, and Henry O. Witman, of Pennsylvania. Dr. Falls is a son of A. J. Falls, of this city, and resides at 1200 Eighteenth street.

Relatives of Robert Hardie are said to doubt the truth of the account of his death, given by his brother-in-law, Dr. Francis L. Haynes. It will be remembered that Dr. Haynes narrowly escaped from the Indians at the time Hardie was killed. The latter's relatives now tell a story which indicates a desire to throw suspicion on Dr. Haynes. The tale sounds very much like an emanation from the addled brain of a devourer of very cheap fiction.

During September the work accomplished at the Women's Hospital comprised the following: Patients treated in wards, 96; discharged, 37; new patients treated in clinics, 487; gynecological, 179; medical, 81; surgical 42; eve, 69; ear, throat, and nose, 43; electrical, 57; dental, 16; visits to morning clinics, 2,019; births in the house, 7; births in out practice, 3; operations in house, 16; operations in morning clinic, 29, one of the latter laparotomy; prescriptions compounded, 2,538; nurses in hospital service, 48.

It is with pride that we notice the development of the silk industry in our State. The display at the State Fair was creditable and in every respect equal to the exhibit of States much older in this production. To Dr. L. A. Buck and his estimable wife belongs the credit of the progress of this institution. The plant is located at Peabody, Kas. In conversation with the doctor, he told us that Kansas silk in New York markets brought one dollar per pound more than any other silk in the market. We take off our hats to Kansas.—*Kansas Med. Journal.*

One physician of Buffalo has brought suit against another for twenty-five thousand dollars' damages for calling him a quack. The chief interest in the case lies in the fact that this much-used and often-abused word is now likely to be defined judicially. The plaintiff had called the defendant in consultation on a case of hernia, which he had treated by electricity. The relations between them became strained, for the plaintiff says that at a meeting of the County Medical and Surgical Society in the Iroquois Hotel on September 2, the defendant spoke of him thus: "The use of electricity is now practised by a notorious quack of Buffalo for the cure of hernia. This quack pronounced the patient cured of hernia after treating him, and a few days afterward the patient was taken with symptoms of strangulation."

—*Boston Med. and Surg. Journal.*

The Absorption of Fat.—Minkowski has found that after extirpation of the pancreas animals entirely lost the power of absorbing fat, except in the form of milk, though if pig's pancreas were mixed with the food the fat was digested and retained. He therefore concludes that the secretion of the pancreas is, if not the sole, at any rate an essential factor in the absorption of fat, reducing it to an emulsion, or a state of physical and mechanical division and suspension similar to that in which it exists in milk.

A charming little fair was held at the residence of Dr. E. E. Montgomery, 1818 Arch street, on Friday afternoon and evening of last week by the "Little Samaritans" for the benefit of the Medico-Chirurgical Hospital. This organization was started by four little girls, Mabel de Kinder, Susie Montgomery, Delia Stewart and Jean Plumly, and the officers at present are Charles Bush, *President;* Delia Stewart, *Vice-President;* Susie Montgomery, *Secretary;* and Mabel de Kinder, *Treasurer*. The fair was quite a success, and we wish the "Little Samaritans" all the success in the world. The fair netted over $200.

At last week's meeting of the Bureau of Charities and Correction, some very handsome needlework, done by the patients in the Insane Department of the Almshouse, was shown to the Board. The materials were sent to the Almshouse some time ago by Mr. John Wanamaker, and as the nurses report a beneficial effect on the patients, contributions of such articles would be of great use. Miss E. Summers was appointed head nurse in the Children's Department. The Almshouse at present contains 2,772 inmates. In the hospital there are 874 patients, and in the outwards 609 men and 405 women, a total of 1,013.

Dr. Rollin B. Gray, of Saratoga, gives, without fee, this prescription for escaping the hypnotizer:

"First, remove and remain out of the physical presence of the person who exerts the power to control. Then submit to the hypnotic influence of another hypnotizer, who should gain as complete suggestive control as possible, and then dismiss the subject—by his power restoring to the hypnotized his own personality and will-function. Thus the victim is slipped from under the control of one superior will (which, it is assumed, is understood) to that of another, who, in turn, restores to him his own personal sovereignty, and bolsters him up in it. But the subject must ever thereafter avoid the presence of the first hypnotizer." One might also hypnotize a too-familiar hypnotizer with a small club or something.

Is it Charity?—During the year 1889 it is stated that over one hundred thousand patients were treated at the Vanderbilt Dispensary. The total number of patients treated at all the dispensaries of this city, according to the official lists in the *Medical Register*, was, in 1889, about three hundred and fifty thousand, exclusive of those treated in the dispensary referred to. If the figures are correct, then within two years the medical paupers of the city have suddenly increased from three hundred and fifty thousand to nearly half a million. In other words, one out of every three or four inhabitants of the city receives medical advice gratis. Curiously enough, while the annual catalogue of the College of Physicians and Surgeons announces one hundred and two thousand patients treated in 1889 at the dispensary referred to, the *Medical Register* gives the number as twenty nine thousand seven hundred and twenty-three. The same authority credits the Eastern Dispensary with the largest number of

patients, viz., sixty-one thousand two hundred and twenty eight, and after this the New York Dispensary, forty-four thousand three hundred and thirty-one, and Bellevue, thirty-nine thousand eight hundred and eighty-nine. Whatever be the true figures, it is evident enough that our medical charities, so called, are growing apace.—*Med. Record.*

THE Board of Trustees of the Rush Hospital for the Treatment of Consumption met last week and elected the following officers: Hon. William M. Ashman, President; Mr. William C. Bullitt, Vice-President; Mr. Joseph De F. Junkin, Secretary; Mr. Nathaniel E. Janney, Treasurer. The following Medical Staff were also elected: Harrison Allen, M.D., Laryngologist; Edward Jackson, M.D., Ophthalmologist; R. Alexander Ramsdell, M.D., Otologist; Henry R. Wharton, M.D., Surgeon; John Guiteras, M.D., Pathologist. The following were elected Consulting Physicians: Alfred Stille, M.D., J. M. DaCosta, M.D., James Tyson, M.D., Roland G. Curtin, M.D.

It was determined, also, to at once begin active work, and a committee was appointed to procure a suitable site for the new hospital.

DR. ROTHROCK, of the University of Pennsylvania, has frequently conducted exploring expeditions of students, giving the latter valuable instruction as well as enjoyment, and this fall will make an expedition to the West Indies. His yacht Whitecap is to leave this city about the 15th of this month with stores and the appliances to be used in collecting objects of natural history. The party of naturalists will join the vessel at Fernandina, Florida, and sail thence for the West Indies about the first of next month, taking with them apparatus for deep sea dredging, as well as for collecting on land. The expedition is undertaken under the auspices of the University of Pennsylvania, and is expected to enrich the museum of that institution, besides leading to similar expeditions in succeeding years. Much original material has already been carried from this continent to European museums, and it is now proposed to systematically explore this continent for the benefit of our home institution, and in doing this exceptional opportunities will be afforded for study in the laboratory of nature, and for healthful recreation.

A SURGEON states that of 5,000 decrepit or aged soldiers that have been brought under his notice, fully 80 per cent. were suffering from heart disease, in one form or another, due to the forced physical exertion of the campaigns, and he predicts that as large a percentage of the athletes of to day will be found, twenty-five years from now, to be the victims of heart disease, engendered by the muscular strains that they force themselves to undergo. With regard to the effect of exercise on the prolongation of life, it may be said that there are more people living in France to-day who have passed the age of sixty than there are in England, the home of athletic sports; and there is probably no nation in Europe more averse to muscular cultivation for its own sake than is the French. Great athletes die young, and a mortality list of Oxford men who have rowed in the "varsity" races, published a few years ago, showed that a comparatively small percentage of them lived out the allotted time. A physician has compiled some very elaborate statistics to demonstrate that men of thought live, on an average, three years and a half longer than men in the ordinary vocations of life.—*Chicago News.*

FRANKLIN INSTITUTE LECTURES.—The Franklin Institute provides, every year, a course of lectures of marked value to young mechanics who desire to improve their minds and advance themselves in their profession. These lectures are given on Monday and Friday evenings of each week, from November 10 to February 27. The programme for the season of 1890 has just been issued, and embraces lectures by Prof. Persifor Frazer, Mr. C. J. Hexamer, Dr. H. Hensoldt, of Columbia College; Prof. Edward D. Cope, Dr. Bruno Terne, Commander F. M. Barber, U. S. N.; Prof. G. G. Groff, Dr. L. Webster Fox, Captain F. A. Mahan, Corps of Engineers, U. S. A.; Mr. J. C. Trautwine, Prof. William D. Marks, Mr. Fred. E. Ives, Dr. A. Victoria Scott, Mr. John Carbutt, Dr. Louis Bell, Prof. J. W. Richards, of Lehigh University; Prof. F. W. Clark, of Washington; Mr. C. J. H. Woodbury, of Boston; Prof. Elihu Thomson, Mr. F. Lynwood Garrison, Dr. E. C. Kirk, Mr. Park Benjamin, Mr. John Birkinbine, Mr. George F. Kunz, Mr. Oberlin Smith, Mr. Horace L. Piper, Dr. H. A. Slocum, and Mr. Walter C. Kerr. These gentlemen are nearly all experts on subjects they have selected, and the lectures, when they admit of it, will be illustrated by lantern views and experiments.

INTERMENTS in Philadelphia, from October 4–11, 1890:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess	2		Fatty degener. of the liver	1	
Anæmia	1		Fever, malarial		1
Asthma	1		" scarlet		3
Asphyxia		1	" typhoid	6	4
Apoplexy	7		Hemorrhage		1
Bright's disease	5	2	Inflammation brain	3	8
Burns and scalds	1		" bronchi	3	3
Cancer	11		" bladder	1	
Caries of the spine		1	" kidneys	5	2
Carbuncle	1		" liver	1	
Casualties	7	1	" lungs	13	5
Cerebro spinal meningitis		1	" pericar'm	2	
Congestion of the brain		2	" peritoneum	3	
" " lungs	2	2	" pleura	1	
" " liver		1	" s. & bowels	2	2
Child birth	1		Intussusception		4
Cholera infantum		6	Locomotor ataxia	1	
" morbus		1	Marasmus		21
Cirrhosis of the liver	1		Old age	10	
Consumption of the lungs	39	5	Obstruction of the bowels	2	
Convulsions	1	16	Paralysis	4	
Croup		9	Poisoning	1	
Cyanosis		4	Pyemia	1	
Drowned	3		Rheumatism	1	
Debility	1	2	Shock	1	
Diabetes	2		Softening of the brain	4	
Diarrhœa	1		Suicide	3	
Diphtheria		14	Syphilis		1
Disease of the brain	1		Teething		1
" " heart	24	1	Tetanus	1	
" " spine	1		Tumor	2	
Dysentery	1	1	Uræmia	1	1
Dropsy		1	Whooping-cough		4
Eczema		1			
Epilepsy	1		Total	189	133
Fatty degener. of the heart	1				

THE activity of Baltimore women in all good work may be judged by the list of societies participating in the conference at Levering Hall last Tuesday. The object of the meeting was the dissemination of information in regard to the work being done by women's societies and the charitable institutions managed by women. Among the societies and institutions represented were the King's Daughters, Young Woman's Christian Association, Female Christian Home, McAll Mission, Pundita Ramabai Circle, Female House of Refuge, Home for Fallen Women, Female City Mission, Aged Men's and Women's Home, Home for Confederate Widows, Home of the Friendless, Nursery and Child's Hospital, St. Vincent's Infant Asylum, Baltimore Or-

phan Asylum, Johns Hopkins Colored Orphan Asylum, Shelter for Colored Persons, Ladi s' Aid Society of Boys' Home, Woman's Work in the Free Summer Excursion Society, Woman's Exchange, Decorative Art Society, Association for the Advancement of Women, Hebrew Ladies' Aid Society, Home for Incurables, Charity Organization Society, Woman's Christian Temperance Union, Children's Country Home, Home for Mothers and Infants, Kindergarten Association, Girls' Friendly Society, Myrtle Assembly, K. of L., St. Joseph's House of Industry, Johns Hopkins Hospital School for Nurses, Woman's Fund for Medical School of Johns Hopkins University, Hospital Relief Association, and the Hospital for the Women of Maryland.

PATENTS, ETC., issued October 7, 1890:—

Back-support and shoulder-brace	M. E. Thomas	Batesville, Ark.
Inhaler	Dow & Warren	Wooster, O.
Liniment	W. Doppelmayer	Sherman, Tex.
Liniment	Snow & Johns.	Washington, D. C.
Liniment-pad	B. T. Jacobs	Stapleton, N. Y.
Head-protecting respirator	J C Jensen	Denmark, Kans.
Amputating-saw	C. H. Truax	Chicago, Ill.
Tonic beverage	R. Rambousek	St. Louis, Mo.
Truss	J. F. Newton	Bardstown, Ky.

TRADE-MARKS.

Liniment. (The representation of frogs playing leap. frog.)	Freure Bros.	Brooklyn, N. Y.
Medicine for private use. (The words "Pleasure-Friend.")	H. W. Faber	St. Louis, Mo.
Dental preparation. (The word "Obtundo.")	T. P. Morey	Bangor, Me.
Remedy for throat and lung diseases. (The word "Psychine.")	Whitcomb & Sayre	New York, N. Y.
Cod-liver oil. (The words "Oxygenized Pure Cod-Liver Oil" and the fac-simile signature of "T. A. Slocum.")	Whitcomb & Sayre	New York, N. Y.
Druggists' sundries, surgical goods, etc. (The representation of a United States shield having on it at the top the words "High Grade.")	Cleveland Rubber Co.	Cleveland, O.
Extracts, essences, etc. (The word "Cha lenge.")	E. R. Durkee & Co.	New York, N. Y.
Restorative preparation for diseased eyes. (The words "Veazie's Eye Restorer.")	Bassett & Brumaghim	Albany, N. Y.
Toilet-masks for the complexion. (The representation of a female head with a mask placed in position to the face and secured by elastic bands	J. E. Hetherington	New York, N. Y.
Remedy for the cure of blood diseases. (The portrait of Mrs. Elizabeth Simington.)	E. Simington	Dickens, Iowa.

CHARLES J. GOOCH, *Patent Attorney.*
LOCK BOX 76, WASHINGTON, D. C.

THE MEDICO-CHIRURGICAL NOTES.

THE seniors had a veritable love-feast at their class election, something unusual for a body of young men having arrived at that period of their college life when the supreme dignity of seniority inflates each with an egotistical estimate of self. The retiring president, Mr. Watt Foster, of Pittsburgh, Pa., conducted the proceedings with fairness and promptitude. The president-elect, Mr. Joseph Cramp, of Philadelphia, assumed the mantle of office with a few brief and well chosen remarks. The other officers elected were: Mr. Foster Quail, *Vice-President;* Mr. August Trapold, *Secretary;* Mr. Victor T. Roth, *Treasurer.* Let the other classes, in this respect, follow the example of the class of '91.

The class of '91 starts in on her third heat undeminished in size and vigor. In point of number, and excellence too, she will pass under the discriminating wire to be thrown across her path on the ides of March, unsurpassed by any former class.

The class of '93 is a set of handsome young fellows. What lies beneath their well fitting hats remains to be demonstrated. If it be true that "the apparel oft proclaims the man," and we don't doubt it, then the M. C. C. has reason to be proud of her latest born.

The juniors have returned bright as the morning dew. The gusto with which they give their college yell is worthy of a band of whooping Kickapoos.

Prof. Keyser's eye clinic, we venture to say, is certainly unsurpassed, if not unequaled, by any other clinic of its kind in the country. Rarely does he hold a clinic but what he has, in addition to a great number of various affections of the eye, one or more operations for cataract, removal of the ball or its contents.

Notwithstanding the inconvenience necessarily attending the rebuilding of our hospital, the college clinics are well sustained.

Dr. Shimwell is going to give to the seniors a very practical course in operative surgery. That the students may have an idea of the touch and conduct of living tissue before the scalpel, and of the effect of air upon the contents of air-tight cavities, such as the abdomen, he will have them do a few abdominal operations upon living animals. The frequency with which the surgeon is now required to enter the abdominal cavity for various causes, makes the giving of instruction and practice to the undergraduates in this class of operations as imperative as in amputations upon the cadaver. Though a few dogs perish, the skill and knowledge acquired by the student may enable him as a surgeon to save many a human life.

It is to be hoped that Prof. Anders will carry out his intention of taking sections of the senior class through the wards of the various hospitals with which he is connected. The Professor is extensively read, and is a most intelligent clinical observer. We are eager to follow so able an instructor to pick up the grains of practical truth he would disseminate for all at the bedside of the sick.

A PIPE AND A DICTIONARY.

THIS is the weed nicotian.

This is the pipe with stem of reed
Which held the stuff that's called the "weed."

This is the match with phosphor end
Which lighted the tube with graceful bend,
Packed with the shrub Virginian.

This is the man bereft of hair,
Whose sulphurous fumes defiled the air,
As he started his meerschaum brown, flavescent,
Filled with Raleigh's gift herbescent.

This is the smoke that rose from the clay
In the lips of the fiend who puffed away,
While the flame on the end of the wooden splint
Ignited the powder which gave the tint
To the bowl of the instrument fuliginous,
Stuffed with America's plant indigenous.

This is the salivary stain,
Produced by the glands of the beast inane,
Whose work pulmonic made fumes carbonic
Which rose with those of the fusee bright,
Whose fiery tip had served to light
The capsule charged with poisonous drug,
Known by the name of "navy plug."

This is the stone which tells the fate
Of him whose death expectorate
Was caused by the herb of powers asthenic,
Consumed in a process oxygenic,
Begun by the spark of stick pyrogenous,
Applied to a briar-wood pipe exogenous,
Of which the smoke is poison slow,
Whose name it takes from Jean Nicot.

—James F. Babcock, in the *Boston Transcript.*

TO CONTRIBUTORS AND CORRSEPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy & Marine Hospital Service.

Changes in the Medical Corps of the U. S. Navy for the week ending October 11, 1890.

BRAISTED, WM. C., Detroit, Mich. Appointed an Assistant-Surgeon in the United States Navy.

WALES, P. S., Medical Director. Detached from temporary duty as member of Medical Examining Board.

AMES, H. E., Passed Assistant-Surgeon. Detached from temporary duty as member of Medical Examining Board.

HERNDON, C. G., Surgeon. Ordered to Naval Hospital, New York.

PERSONS, R. C., Surgeon. Detached from Naval Hospital, New York, and wait orders.

SCOTT, H. B., Passed Assistant-Surgeon. Ordered before the Retiring Board.

PRICE, A. F., Surgeon. Detached from Naval Dispensary, Washington, D. C.

ANDERSON, FRANK, Passed Assistant-Surgeon. Ordered to Naval Dispensary, Washington, D. C.

WHITE, C. H., Medical Inspector. Ordered to hold himself in readiness for duty to U. S. S. "San Francisco."

BRAISTED, W. C., Assistant-Surgeon. Ordered to Army and Naval Hospital, Hot Springs.

SPRATTLING, L. W., Assistant-Surgeon. Ordered to hold himself in readiness for orders to the U.S.S. "San Francisco."

SIEGFRIED, C. A., Surgeon. Ordered to the U. S. Trainingship "New Hampshire."

BLACKWOOD, N. P., Assistant-Surgeon. Detached from duty in the Bureau of Medicine and Surgery, and granted leave of absence.

STONE, L. H., Assistant-Surgeon. Detached from the U. S. S. "New Hampshire," and wait orders.

EDGAR, JOHN M., Passed Assistant-Surgeon. Ordered to hold himself in readiness for duty on the U. S. S. "San Francisco."

GARDNER, J. E., Passed Assistant-Surgeon. Detached from the "Albatross," and wait orders.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service from September 8, 1890, to October 4, 1890.

HUTTON, W. H. H., Surgeon. Detailed as chairman, Board of Examiners, October 2, 1890.

LONG, W. H., Surgeon. Detailed as member, Board of Examiners, October 2, 1890.

PURVIANCE, GEO., Surgeon. Granted leave of absence for thirty days, September 10, 1890.

GODFREY, JOHN, Surgeon. Detailed as recorder, Board of Examiners, October 2, 1890.

WHEELER, W. A., Passed Assistant-Surgeon. To proceed to New Orleans, La., for temporary duty, October 3, 1890.

BANKS, C. E., Passed Assistant-Surgeon. Granted leave of absence for twenty days, October 3, 1890.

AMES, R. P. M., Passed Assistant-Surgeon. To proceed to New Orleans, La., for duty, September 13, 1890.

PETTUS, W. J., Passed Assistant-Surgeon. To proceed to Vineyard Haven, Mass., for temporary duty, October 1, 1890.

HUSSEY, S. H., Assistant-Surgeon. To proceed to New Orleans, La., for temporary duty, September 19, 1890. To proceed to Norfolk, Va., for temporary duty, October 3, 1890.

WERTENBAKER, C. P., Assistant-Surgeon. Granted leave of absence for twenty days, September 12, 1890.

PERRY, J. C., Assistant-Surgeon. Upon expiration of leave, to rejoin station at Mobile, Ala., September 29, 1890.

YOUNG, G. B., Assistant-Surgeon. To proceed to Memphis, Tenn., for temporary duty, September 13, 1890. To rejoin station, St. Louis, Mo., when relieved at Memphis, Tenn., October 3, 1890.

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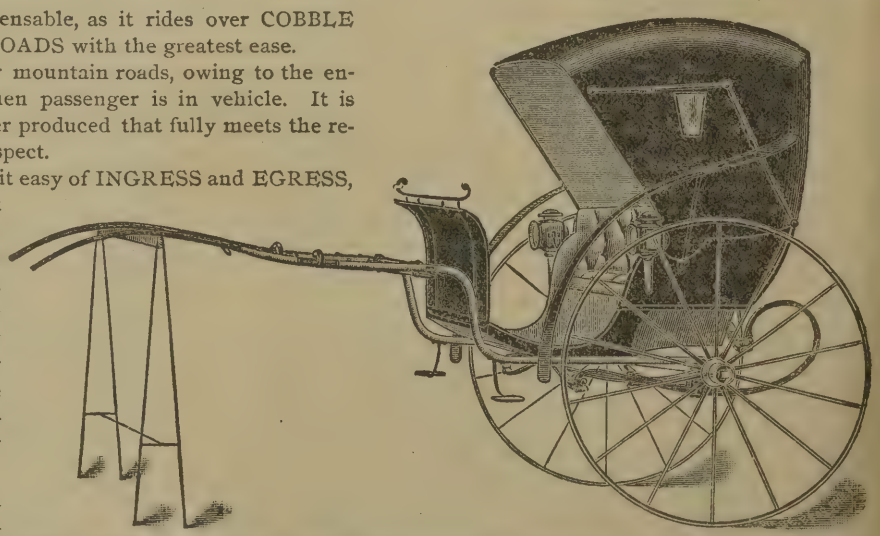

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Vol. XXI, No. 17. NEW YORK AND PHILADELPHIA, OCTOBER 25, 1890. Whole No. 633.

PAGE

CLINICAL LECTURE.

ANGINA PECTORIS. MIXED PNEUMONIA COMPLICATING A DOUBLE HEART LESION. TRAUMATIC CERVICAL MENINGITIS. TYPHOID FEVER COMPLICATED WITH CROUPOUS PNEUMONIA. RESULT OF HYDRO-THERAPEUTICS. By Solomon Solis-Cohen, M.D. - - - - - - - - - - - - - - - - 373

ORIGINAL ARTICLES.

A CLINICAL STUDY OF SULPHO-CARBOLATE OF ZINC. By William Blair Stewart, A.M., M.D. - - - - - - - - - - - - - - - - - 375

FOOD AND TUBERCLE. By Ephraim Cutter, M.D., LL.D., A.M. - - - - - - - - - - - 378

THE WEST INDIES AS A SANITARIUM. By William F. Hutchinson, M.D. - - - - - - 382

SOCIETY NOTES.

PHILADELPHIA COUNTY MEDICAL SOCIETY, 384

Rib-fracture from Muscular Action, with Forty Collected Cases. *Tunis* - - - - 384

PAGE

RAILWAY SURGEONS' ASSOCIATION - - - - 388

When to Amputate. *Buchanan* - - - - - 388

EDITORIALS.

DR. BARTHOLOW'S RETIREMENT - - - - - 389

ANNOTATIONS.

Preference of Patients for Physicians of the Opposite Sex - - - - - - - - - - - - 390

Disinfection of Typhoid Excreta - - - - - 390

Absorption of Drugs from Ointments - - - 390

The "Kreutzer Sonata" and Russian Morality - - - - - - - - - - - - - - - 390

Railway Surgery - - - - - - - - - - - - 390

LETTERS TO THE EDITOR.

Cardiac Ossification. *Reading* - - - - - - 391

BOOK NOTICES.

Essentials of Practice of Medicine. *Morris* 391

Saunders' Pocket Medical Lexicon. *Keating and Hamilton* - - - - - - - - - - - - 391

PAMPHLETS - - - - - - - - - - - - - - 391

PAGE

THE MEDICAL DIGEST.

Treatment of Chronic Bright's Disease. *Lépine* - - - - - - - - - - - - - - - - 388

Noma Following Typhoid. *Keim* - - - - - 391

For Cirrhosis of Liver. *Satterthwaite* - - - 391

Traumatic Tetanus. *Tancil* - - - - - - - 391

For Diabetic Gingivitis. *Dujardin Beaumetz* - - - - - - - - - - - - - - - - 391

Itching. *Bronson* - - - - - - - - - - - 391

Ovariotomy for the Cure of Insanity. *Pfaff* 392

For Diabetes. *Porter* - - - - - - - - - - 392

Administration of Chloralamid - - - - - - 392

Toxic Effect of Calomel in the Presence of Chlorides of the Alkalies. *Adam* - - - 392

Spinal Concussion. *Watson* - - - - - - - 392

Bacillary Partnerships. *Cornil and Babès* - 392

Chloroform *Reeve* - - - - - - - - - - - 392

Examination of the Sputum for Tubercle Bacilli. *Kühne* - - - - - - - - - - - - 393

Pancreatic Digestion in Marasmus. *Gillet* - 363

Intestinal Obstruction. *Jessett* - - - - - 393

MEDICAL NEWS AND MISCELLANY, 394

ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - - - 396

NOTES AND ITEMS - - - - - - - - iv, xiv

Clinical Lecture.

ANGINA PECTORIS. MIXED PNEUMONIA COMPLICATING A DOUBLE HEART LESION.

TRAUMATIC CERVICAL MENINGITIS. TYPHOID FEVER COMPLICATED WITH CROUPOUS PNEUMONIA. RESULT OF HYDRO-THERAPEUTICS,[1]

BY SOLOMON SOLIS-COHEN, M.D.,

Professor of Clinical Medicine and Applied Therapeutics in the Philadelphia Polyclinic, Visiting Physician to the Philadelphia Hospital.

GENTLEMEN: I show you to-day a number of convalescents to demonstrate the results of treatment. First, we have here a case which some of you may remember as having been shown to the class in the early portion of the winter. It is a case of angina pectoris, the man having suffered from very severe, very prolonged and frequently repeated attacks of cardiac pain, associated with severe dyspnœa, and sometimes with syncope. The peculiar interest of the case lay in the large doses of nitro-glycerine we were compelled to administer. We failed to get the desired effect from its internal use, and so we resorted to hypodermic injections, giving from ten to fifteen minims of the centesimal, or 1 per cent. solution in alcohol, at a dose. In addition he was, later, given the nitrite of sodium internally, in doses eventually increased to five grains, three times a day. Thus at one time he was taking forty minims of a 1 per cent. solution of nitro-glycerine—very nearly one-half minim of pure nitro-glycerine hypodermically — and fifteen grains of sodium nitrite by the stomach, in the twenty-four hours. Even this proved inefficient at one time, and we supplemented it by morphine with atropine hypodermically. Thus far we have had very good results, since he has had no attack since April 16, about eight weeks. As a matter of course his stomach has not been allowed to be overfilled, and his bowels have been kept open. After his attacks were somewhat controlled, and we had therefore considerably diminished the quantity of medicaments administered, we noticed a hysterical element in the case, in addition to the organic trouble. This led us to give hypodermic injections of aqua destillata, and internally, pills of althea, the patient remaining under the impression that the nitrites were still being used. The hypodermic injections have now been discontinued and he is getting only the pills; as no further attack has been noticed in four weeks of this treatment, it may serve to illustrate the triumph of mind over matter. It must however be distinctly borne in mind that in the beginning, psychical influences would have been totally unavailing, to control even the morbid fear of attacks which aggravated their severity and perhaps increased their frequency. The decided physical effect produced by the drugs employed was the curative agency; the treatment by suggestion, merely served to prolong its good results, and overcome the element of fear still persisting.

This case was also before the class early in the course. The man, at that time, was recovering from an attack of influenza manifesting itself as a mixed pneumonia, neither exclusively croupous nor exclusively catarrhal, but sharing the clinical characteristics of both. Recovery has taken place notwithstanding very serious heart lesions of long duration, ten years or more; mitral incompetence and aortic stenosis, with some accompanying aortic incompetence. You may remember that during the acute attack his respirations had been at times greater in number than his pulse-beats. When the respirations reached sixty per minute, and often when they were not more than fifty, they exceeded his pulse. The interest in the case was chiefly therapeutic; namely: the absence in the treatment of all antipyretic drugs —which would certainly have caused his heart to cease beating forever—and the employment of atropine and strychnine in combination for the heart difficulty, instead of drugs like digitalis or strophanthus, which might, perhaps, have been deemed at first sight to be indicated. The nitrites were also employed from time to time, with advantage. The patient has gained in weight and strength since convalescence set in, and can now walk about quite comfortably. His shortness of breath is not marked, except after climbing two flights of stairs; his pulse to-day is 72, and respirations 20. His heart lesion remains, but we are fairly compensating it by the use of drugs. He is advised to keep comparatively quiet, but is allowed to go about a little for fresh air.

At the beginning of March this next patient, while

[1] Delivered at the Philadelphia Hospital.

intoxicated, fell from his chair in such a way as to bend his head under his chest. He remained unconscious for about an hour, but on recovering seemed perfectly well, and for two days attended to his work. On the afternoon of the second day he experienced pain in the back of his neck, dull and throbbing in character. Later, this pain extended into the shoulder upon the line of the spine of the scapula, and in the infra-clavicular region. He now took to his bed, where he remained for four weeks. His pain was now better, now worse, and at times he was unable to raise his head from his pillow. He then was admitted to the hospital. There was no swelling of the joints, and no pain in his limbs. He was unable to lie upon his left side because of the pain in his left shoulder, and on sitting up his head inclined markedly downward, forward, and to the right. There was pain on pressure over the fourth, fifth and sixth cervical vertebræ; especially marked in the interval between the fifth and sixth spinous processes. He could not lift his head, nor move it from side to side, and could nod but to a very limited degree. There was no spasmodic contraction of muscles however, as in ordinary torticollis. He could not abduct or lift the arm, though the fore-arm moved freely. Here we have a condition often erroneously called rheumatism; pain in the shoulder and head, stiffness of the neck, and inability to raise the head and arm. There is no heart lesion, no fever, and the trouble can be traced to a fall while in a state of intoxication, although immediately after the fall he was able to attend to his work. The conclusion was reached that we had to deal with a slow superficial meningitis, confined to a restricted area in the neck. Possibly there had been some involvement of the nerve roots, which would account for the pain in his shoulder and hand, and the slight paretic element present. Mild cases of this nature do not come to autopsy, so that an element of doubt is involved in the diagnosis; but to my mind the explanation given is the most probable.

The treatment has consisted in blistering six inches over the cervical spine and along the crest of the shoulder. He has been given increasing doses of potassium iodide, in saturated solution so that one minim of the solution contains nearly one grain of the salt. We began with fifteen minims three times a day, and ran up to thirty minims, stopping there because we had produced iodism. The improvement has been very rapid; he now has no pain and can move his head freely in all directions, and lift the arm at the shoulder. The bowels have been kept open by sulphate of magnesium, and all the secretions regulated.

Here is a patient who is convalescing from typhoid fever. He is aged eighteen years. He came into the house on the first of May, with a temperature at 3 P. M., of 102.6°; at 7.15 P. M., the same day, it had risen to 105.6°. The rose spots and the other symptoms indicated that the patient was in the second week of his fever, probably at the ninth or tenth day. He had not previously been treated, and had been walking about. The resident physician, Dr. Sothern, who saw the patient on admission, following the standing instructions in my ward, immediately instituted the cold water treatment, and at 8.15 P. M., after cold sponging, the temperature had fallen to 102.2°. No antipyrin, antifebrin, or other dangerous explosive had been administered. I would have preferred cold bathing to sponging, but unfortunately the former is not as yet practicable in these wards. We begin sponging with tepid water, and during fifteen minutes gradually reduce the temperature to about 50° F. A little alcohol is added to promote evaporation. As a matter of course the patient's temperature rose again, and at 10 P. M. it was 104.2°. Again he was sponged, and it fell to 101.8°, and so it has run throughout the course of the disease; the period of comparatively low temperature, however, gradually lengthening, while it has not risen above 103.5° since the first day after admission. The difference between the morning and evening temperature, usually so marked in enteric fever, is almost obliterated here by the cold water treatment, as is shown by this chart.

An interesting feature of this case is that this man had pneumonia with his typhoid fever, a rare complication. A great portion of the so-called typhoid pneumonias are pneumonias of a low type, having no enteric complications whatever; others are simply hypostatic congestions associated with bronchial catarrh in cases of enteric fever—still others are cases of mixed bronchial and intestinal influenza or catarrhal fever—but this man had, so far as physical diagnosis could inform us—and happily the confirmation by section is lacking—a genuine lobar pneumonia of the right base, complicating his typhoid fever. The treatment, in addition to cold sponging and the internal administration of salol, five grains four times daily, as an intestinal disinfectant, with calomel as required, to keep the bowel clean; was an ammonium mixture for his pneumonia, and counter-irritation, in the form of turpentine stupes following a mustard plaster, over the base of the right lung. Under this treatment he has recovered. I do not say he was cured, you will notice. The tendency of this disease is to recovery, barring accident, and all the physican can do is to bar the accident. This, I think, we have here accomplished. His diet, of course, was strictly regulated. The formula of the ammonium mixture which I prefer in cases like this, is as follows:

℞.—Ammonii salicylat.,
Ammonii carb . . . . . āā gr. v.
Spt. ætheris nit. . . . . ♏xv.
Ext. cocæ fld.,
Glycerini . . . . . āā f℥j.
Liq. ammonii acetat. . . . q. s. ad f℥ss.

The erythroxylon coca is used to disguise the taste of the ammonium salts, and to act as a cardiac stimulant and tonic; the "nitre" is a mild diuretic, diaphoretic, and cardiac stimulant. A small quantity usually increases the efficacy of more active preparations of a similar class. This dose is given every two, three, or four hours, according to indications. The dose of the ammonium salts may be altered according to circumstances. I do not think that the value of the salicylic salt is appreciated generally to its full deserts. The amount of whiskey given was not very great. Towards the close of typhoid fever is the time to increase the amount of alcohol. We began with three ounces per diem, and increased to six ounces per diem towards the close. He is now on the compound tincture of cinchona. At one time in the disease we gave turpentine to meet special indications. When the tongue is dry and glazed and brown, and there is marked tympany or a tendency to heart failure or intestinal hemorrhage, turpentine is beneficial. It may be given in emulsion, five or ten minims every two to four hours as required. Sometimes it may have to be intermitted or even withdrawn altogether because of suppression of urine, strangury or even hæmaturia. I have seen similar ill-effects from terebene and from terpine hydrate. In what is technically known as the "cold water" or "Brand" treatment of enteric fever, no medicine is given. Systematic cold bathing is faithfully carried out. It is the best method of treatment of which I have knowledge.

Original Articles.

A CLINICAL STUDY OF SULPHO-CARBOLATE OF ZINC.[1]

By WILLIAM BLAIR STEWART, A.M., M.D.

FOR many years diseases of the gastro-intestinal canal, as well as those of other organs, were treated empirically; but, at the present day, with our knowledge of bacteria as an etiological factor, we are enabled to strike directly at the seat of the trouble, in many cases, and treat on scientific principles. It is not my intention, in this article, to review the whole field of antiseptics, nor to enter into a discussion of the intestinal antiseptics in general, but I wish to direct the attention of the profession to some of the results that have been obtained from the use of sulpho-carbolate of zinc. My attention was first directed to this drug in the fall of 1887, and, since that time, I have had an opportunity of studying its action in the treatment of affections of the gastro-intestinal tract and other organs.

WHAT THEN IS SULPHO-CARBOLATE OF ZINC?

Sulpho-carbolate of zinc is a new unofficial salt, prepared by the action of a concentracted solution of barium sulpho-carbolate on zinc carbonate, by which sulpho-carbolate of zinc is formed.—Remington.

Properties.—It is a crystalline, transparent salt which is permanent in air. It is neutral in reaction, and has no smell. It has a taste somewhat bitter and cooling as well as astringent. It is soluble in water and alcohol and gives a perfectly clear solution. When heated moderately, the water of crystallization is thrown off and a white powder remains. When a higher degree of heat is applied, inflammable fumes are given off, which emit the odor of carbolic acid, and a white tasteless residue remains. With this brief reference to the drug, its preparation and properties, I will pass to a consideration of its therapeutic effects without entering into further details as to its chemical and pharmaceutical history.

Under the head of summer diarrhœa we find a class of maladies that often prove to be intractible and fatal under the ordinary forms of treatment, but now much can be done to effect speedy recoveries in many cases, and to diminish the mortality by the intelligent use of this valuable remedy—sulpho-carbolate of zinc.

Investigation has shown that most forms of summer diarrhœa are due to the irritation caused in the alimentary tract by certain disease germs, and their ptomaines which are developed in undigested and fermenting food. Bearing this in mind, many cases can frequently be relieved by a dose of aromatic syrup of rhubarb, or a dose of oil to stimulate the intestines to throw off the offending material. The main principle to be considered is that of *elimination*, for, so long as the poisonous matter remains in the bowels, we have a focus from which the trouble will spread, and no amount of antiseptic medicine will render it inert. However, it is not to these mild cases that I refer, but to those in which the ordinary cathartic will not bring relief.

Given, a typical case in which a child is vomiting; has pain in the stomach and bowels, with a high fever; what is the condition, and what are the indications for treatment? The whole trouble is traceable directly to the intestinal canal which is swarming with microörganisms and, what is worse, their ptomaines. These germs, by their action, are a source of irritation to the intestinal mucous membrane, and also cause a fermentation and decomposition of the food or fluids which, with the ptomaines and secretions, cause the fetid discharge. What then happens? The absorbents take up the septic matter and ptomaines and throw it into the circulation, and, by this, we can account for the fever and constitutional symptoms.

Purgation has been sufficiently free, and the child is so sick that nothing in the nature of a strong dose could be retained on the stomach and, again, it is necessary to stop the violent drain on the system as soon as possible. The line of treatment is now evident, and what is wanted is a remedy that will be carried to the intestinal canal and kill the germs, neutralize the ptomaines and stop fermentation. The cause once removed, the constitutional symptoms will subside. It is almost impossible to find a remedy that can be administered in quantities sufficient to accomplish this result without endangering the life of the patient, but there is one remedy that can be given in efficacious doses, and that is the sulpho-carbolate of zinc.[1] To a child, two years old, I would give ℞.—Zinc sulpho-carbolate, gr. 1-4; bismuth subnit., gr. 1, every two hours, increasing the sulpho-carbolate at every dose, if necessary, until two grains would be given at one dose. As the symptoms subside, lengthen the interval for administering the medicine. If the first dose is vomited, persist every fifteen minutes or longer until a powder can be retained. If administered in this way, the first change noticed is in the vomiting, which is almost immediately checked after the first dose. The fermentation of the food is checked and the pain subsides as a consequence. After a few doses have been taken the fever and constitutional symptoms subside, the stools lose their odor, become less frequent and assume a normal condition. Sometimes the diarrhœa and fever do not subside under this treatment because the ptomaines and germs are active in the lower bowel and cannot be reached by the mouth. In this case, make a solution of five or ten grains of the sulpho-carbolate to the pint of hot water, and use freely at regular intervals as an injection. Do not be afraid to fill the bowel full of the solution or you may not obtain the desired result. In addition to this treatment, as in treatment of all other diseases, it is necessary to regulate hygiene and diet, and meet the other complications, as they arise, with the appropriate remedies. Good nursing is half of the battle.

There are those who advocate the use of other remedies, and, in some cases, undoubtedly obtain good results; but, many times, when we come to consider the rationale of their treatment we meet with great obstacles. Undoubtedly good results have been obtained from the use of other combinations, and I have found it so in my own hands, but it is well to have a variety of remedies from which to select, and this one is worthy of a high place in the catalogue.

A germ is a germ, whether in a man or a child, and it will take as much medicine to kill it in the one as in the other, except that we find a proportionately larger surface of mucous membrane in the adult. Bichloride of mercury has its advocates; but it is found that a dose sufficient to render the intestinal canal aseptic would kill or seriously endanger the

[1] Read before the Atlantic County, New Jersey, Medical Society, September 3, 1890.

[1] I do not wish to be quoted as saying that the intestinal canal can be rendered entirely aseptic, but the sulpho-carbolate will come as near producing this condition as any other remedy.

life of an adult. Again, it forms albumenate of mercury, which is not antiseptic. How much less would this remedy be applicable in children? "Hydronaphthol has been used by an English physician as an intestinal antiseptic; but a limit of tolerance was reached before it rendered the intestines aseptic." (Waugh). Others claim that this salt is innocuous. (*Therap. Gazette*, Aug. 15, 1890, p. 544). It, as well as beta-naphthol, is not efficient or suitable in children. Salicylic acid and the salicylates are too irritant to the mucous membrane of the bowels, and are unpleasant remedies in children. Salol is a valuable remedy, and most excellent results are reported from its use.

As to the merits of the sulpho-carbolate of zinc: It has been given in fifteen-grain doses to an adult without causing any symptoms of irritation or unpleasantness, and one case is quoted by Dr. W. F. Waugh, of Philadelphia, where sixty grains in one day gave no unpleasant or toxic symptoms. Why, then, is the zinc salt preferable to the officinal sulpho-carbolate of soda or sulpho-carbolic acid? Phillips, in his work on Materia Medica, in speaking of the sulpho-carbolates, says: "The administration of these salts, however, offers an indirect method of giving carbolic acid. . . . These alkaline compounds, however, have less local irritant action, and up to the present time have not caused poisonous symptoms." (Page 866). Dr. Cerna (*Medical Times*, Vol. X, p. 209) sums up his article on the sulpho-carbolates as follows: "1. The sulpho-carbolates possess toxical properties for cold-blooded animals. 2. In warm-blooded animals these salts are innocuous." The zinc salt is more or less astringent, and has a better action on the mucous membrane of the bowel, and is a nerve stimulant, while the sodium lacks this virtue. The zinc salt also acts more like small doses of arsenic and copper, the virtues of which have been well established.

Again, Potter (Therapeutics, page 396) says of the zinc salts: "They manifest a much less tendency to accumulate in the system than the other metallic salts, and are excreted much more rapidly. Elimination takes place chiefly by the liver and intestinal glands." Zinc acts also as a nerve tonic. The general supposition was that the zinc sulpho-carbolate was not fit for internal administration, and for this reason it has been slighted by our authorities in its consideration; little space and attention being given to it. The pure sulpho-carbolic acid could not be given on account of its obnoxious smell and taste, as the little ones would rebel against it.

In the administration of germicides, the first principle to be observed is to give enough to destroy the germ without endangering the life of your patient. During the past two summers it has been my privilege to treat a great number of cases of summer diarrhœa and cholera infantum without the loss of one case, and my mainstay has been the sulpho-carbolate of zinc. I will mention two cases from my clinical record.

CASE I.—Martha J., aged ten months, was seized with violent vomiting and greenish diarrhœa. Nothing would remain on her stomach, and she was unable to retain any nourishment. There was some fever; pulse was high, and the child was very restless. It was bottle-fed. The above prescription was ordered and instructions in regard to diet were given.

℞.—Zinci sulpho-carb..... gr. 2½
Lacto-peptine..... gr. 12
Bismuth subnit..... gr. 18

M. Ft. chart No. 12.

Sig.—One every two hours until relieved; then increase the interval, and give as necessary to control the bowels.

From the first dose the child began to improve, and in two days had completely recovered. The zinc salt acted as an antiseptic, antispasmodic, and astringent; the pepsin as a digestant, and the bismuth as a sedative and astringent. During the remainder of the summer the child had several severe attacks, but was promptly relieved by the same treatment.

CASE II.—Mr. James G., a laborer, was seized with violent vomiting, cramps and fetid diarrhœa. I found him in bed, very weak, nervous, and restless, and still inclined to vomit everything he attempted to swallow. He was given a powder containing two grains of the sulpho-carbolate and two grains of bismuth, to be repeated every two hours. He improved from the first dose. Nausea ceased, pains disappeared, and after the fourth or fifth powder the diarrhœa ceased. He slept soundly all that night, and was put on a tonic, and in a few days was able to resume his duties in full.

I could cite many cases of similar character that have come under my care, and in every case the same uniform good results have been obtained.

I wish next to call your attention to another property of this agent, viz., its employment in combination with purgatives and other irritants (local) of the alimentary canal for its sedative effects. The griping produced by cathartics may often be measurably overcome by combination with the sulpho-carbolate of zinc. I have found it of especial value where a slight astringent action is desired in connection with cathartics, to prevent too free and active purgation. Ordinarily it acts very nicely in this combination, and is worthy of your attention. It answers very nicely to take the place of the opiates which are so frequently used with purgatives. A short letter received from Dr. T. S. Blair, of Chambersburg, Pa., will give a good idea of its use in this connection. He writes:

"In reference to the use of sulpho-carbolate of zinc, I would say that, aside from its usual purposes, I have employed it in acute summer diarrhœa and as a corrigent in various cathartic preparations in general use. For the common bilious attacks of adults I usually write as follows:

℞.—Hydg. chl. mit..... gr. 4
Podophyllin..... gr. ½
Zinci sulpho-carb..... gr. 1½

M. et ft. chart No. 3.

Sig.—One at six P. M., one on retiring, and, if necessary, the third powder in the morning.

"The above is very efficient in severe cases, and the zinc prevents largely the griping and nausea produced by the podophyllin. Owing to its astringent and antiseptic qualities, the salt is especially applicable in summer diarrhœa, and I usually exhibit it in a combination, as follows:

℞.—Hydg. chl. mit..... gr. 5
Pulv. rhei..... gr. 15
Zinci sulpho-carb..... gr. 3

M. et ft. chart No. 3.

Sig.—Take, in rice-paper wafer, same as in last ℞.

"This is for an adult. I find this mixture an admirable purge for general purposes, and have particularly noted its power of rapidly reducing fever due to indigestion or congestion of the bowels. I have used it a score of times in cases where a good purge was necessary and the patient could not leave his business. It produces the minimum of nausea and yet proper efficiency. In many cases I reduce

the quantity of Hg. For children I usually prescribe the proper quantity of blue mass or mercury and chalk, in place of calomel; but a slight increase over the ordinary dose is required, owing to the astringent quality of the sulpho-carbolate." * * * *

Dr. Boardman Reed, of Atlantic City, N. J., kindly contributes a few lines in relation to his experience in the use of this remedy: "A delicate child was brought here from a Western city in the early part of the present summer, suffering with chronic intestinal catarrh, which seemed to be a sequela of la grippe. It was a baby of about a year old, and though it was having only three or four slimy stools a day, was already considerably emaciated. After trials with various other remedies, the child was placed on the sulpho-carbolate of zinc, one-quarter-grain doses, combined with one grain of lacto-peptine after each feeding. Half a teaspoonful of castor oil was administered once in two or three days, to clear out the bowels, and cod-liver oil was rubbed into the skin every day. The result was quite satisfactory. The stools gradually became fewer in number and of better quality. In the course of a month after this treatment was instituted, the mucus had almost entirely disappeared from the stools, and the latter were beginning to be formed.

"I have used this drug in numerous other less stubborn cases of intestinal flux, and nearly always with satisfactory results. It combines the properties of a mild, but apparently active germicide with those of an efficient astringent."

All modern investigation and research point to the fact that typhoid fever is due to a distinct germ, which finds its habitation in the intestinal canal—confining its attacks to the mesenteric glands and the patches of Peyer. Prior to the discovery of the bacterial origin of this disease treatment was symptomatic, and the best and most successful remedies, that were then used empirically, were those that we now know to act as germicides. In addition to the actual use of antiseptics, we must also bear in mind the fact that there are remedies that can arm the body against the invasion of disease germs by rendering the body an unsuitable soil for their growth and development.

Without entering into a discussion of the merits and demerits of the old and well-tried methods of treating typhoid, I wish to present the clinical results of the use of the sulpho carbolate of zinc in this disease. I am one of the firm believers that typhoid, in its first stages, is a localized disease manifested by constitutional symptoms due to the presence of micro-örganisms that are inhaled or ingested with food or drink. These germs flourish and grow, and, at first, are confined to the stomach, when in an unhealthy condition, and upper bowel; later the lower bowels are attacked, and so great becomes the action of these germs that the system can no longer withstand them, and, as a consequence, their ptomaines are absorbed; great depression supervenes and frequently death. With this brief review of the etiology of typhoid, the rationale of the use of the sulpho-carbolate becomes apparent, as in the cases of diarrhœa.

I have seen many cases that presented the typical symptoms of incipient typhoid, which were aborted by the administration of two-grain doses of the sulpho-carbolate of zinc every three or four hours, for the first few doses, and then lengthening the interval. Dr. W. F. Waugh reported thirty-four cases of typhoid fever, which he treated with the sulpho-carbolate of zinc, and did not have a case in which perforation, hemorrhage or grave nervous symptoms ensued during the use of this drug, as was the case with other remedies. Every case recovered. He gave three grains every two or three hours in a little water and noted that the stools soon became normal and lost their odor; diarrhœa was checked; tympanites subsided; the stomach became quiet; the temperature became one or one and one-half degrees lower, and the delirium and stupor subsided. No antipyretics were needed; but, in some few cases, where the heart was weak, stimulants were necessary. Bovinine, thickened with the white of an egg, constituted the best diet.

The great secret in the use of this, as well as all other antiseptic remedies, is to begin its use early in the course of the disease, and to use it persistently and in doses sufficient to render the alimentary tract as nearly aseptic as possible.

I have received a very interesting letter from Dr. W. G. Stewart in relation to the use of this drug, and it is worthy of a passing glance. It reads as follows:

"In December, 1888 and 1889, I treated seven cases of typhoid fever in one family, all well-marked and nicely defined cases of that disease. The general and leading symptoms were confined principally to the bowels—most of the cases having swollen and tender abdomens, with some hemorrhage. Temperature ranged from normal to 105° F. I treated these cases with the sulpho-carbolate of zinc, pepsin and opium. I gave the zinc in one-half to three-grain doses every two, three, or four hours, as indicated and according to age. Every one of the family recovered promptly, with no unpleasant sequela. The zinc salt is an invaluable remedy in all well-defined cases of typhoid fever, and should be given in all stages of the disease for its antiseptic properties, and as a guard against hemorrhage.

"In 1889, I treated about seventy cases of infantile diarrhœa and cholera infantum with the sulpho-carbolate of zinc, pepsin, bismuth and opium. The zinc was given in one-quarter to one grain doses every three or four hours, and with a uniform good result in every case.

"In August, 1889, a man of about forty-five years, called to see me who was suffering with the regular 'bloody flux.' I gave him three grains of the sulpho-carbolate of zinc, with one-half grain of opium every three hours. In twenty-four hours he was entirely relieved and resumed his regular duties on his farm.

"In January, 1890, was called to see a man of seventy-two, with hemorrhage from the stomach, vomiting blood in large quantities, and was in a very weak and reduced condition. I at once gave him five grains of the sulpho-carbolate of zinc in a wine-glass full of water, which stopped the vomiting and all hemorrhage. The zinc was continued in three-grain doses every four hours, and my patient has now entirely recovered, and has had no symptoms of any return of the hemorrhage.

"So far, in the summer of 1890, I have used this salt in about forty-five cases of diarrhœa and cholera infantum, and have obtained the same results as before. I am fully satisfied that in the sulpho-carbolate of zinc we have a valuable remedy; one on which we can rely with confidence. In all, I have treated over one-hundred and fifty cases with this drug, and in *no case have I regretted the selection of the remedy.*"

Dr. George Grove, of Big Spring, Pa., a physician who has practised medicine for more than fifty years, writes that: "From the first dose of sulpho-carbolate of zinc, with bismuth and opium combined, in two cases of typhoid fever in the third week, the irritability of the stomach was relieved, and the stools lost

their fetid odor in twenty-four hours' time. I then gave cinchonidia every four hours, and in eleven days my cases needed no more attendance. These were cases of typhoid abdominalis. Regarding the diarrhœa of children, I think it is the *rem tendere* (or the thing intended.)"

Every drug will be used in some cases where it will not accomplish the desired result, and so with this one. A case just now comes to my mind where a physician used the sulpho-carbolate of zinc in a bad case of typhoid fever. The case was that of a young man, aged twenty-two years. He had a high temperature, and blood-stained stools. The sulpho-carbolate was given; but, in spite of all treatment, perforation and profuse hemorrhage supervened, and the patient died. Now it is altogether possible that the sulpho-carbolate was not used early enough in this case, and not in sufficient doses to accomplish the desired result. When typhoid, like all other diseases, has assumed a malignant form, in which the blood is disintegrated and the whole system depressed, it cannot be expected that this, or any other remedy, can repair the damage which has been done; death alone can end the scene.

I am unable to learn of any authentic cases of Asiatic cholera or yellow fever in which this remedy has been given a fair test; but I believe that it is well worth a trial in these affections. Owing to its astringent, anti-spasmodic and antiseptic properties, it seems to me that if the remedy were given boldly and in large doses (five to fifteen grains) every few hours, at the outset of these troubles, the disease might be checked, or greatly mitigated in its severity. This drug does not possess the same astringency as that found in the sulphate of zinc, but it will act much better locally in many cases; and, having in addition the antiseptic properities, is preferable.

By using from two to four grains of the salt to the ounce of water we have a very good injection for gonorrhœa, leucorrhœa, or gleet. In an article written by Dr. J. William White for the *Medical News* (June 14, 1890), he refers to the use of a combination of corrosive sublimate and boric acid in the treatment of recent anterior urethritis. He then says: "I felt, however, the additional need of an astringent, and for a long time employed the sulphate of zinc, for which I have recently substituted the sulpho-carbolate (two to ten grains to the ounce of the mixture). By using a ten to fifteen per cent. solution of peroxide of hydrogen as a menstruum, I then found that I had a formula which, both clinically and experimentally, showed excellent antiseptic qualities. In exceptional cases of profuse catarrhal secretion the addition of bismuth salicylate was also of advantage."

It is also very valuable as a lotion in discharging wounds and mucus surfaces. It has been used in balanitis with success. In the London Throat Hospital ("Wood's Medical Formulary," page 382) it is "used tropically as a stimulant and antiseptic. R.—Zinci sulpho-carbolate, gr. 5; distilled water, ℥i. M.—Used by means of spray apparatus. Used in secondary syphilis of the larynx and pharynx."

Phillips (Therapeutics, page 866) speaks of its use in scarlet fever. "In twenty-nine cases, some extremely severe with suppression of rash and convulsions, all recovered except one (a syphilitic baby). Convalescence was most complete in seven to fourteen days. No topical treatment was practised, and Dr. Sansom fairly concludes that by the sulpho-carbolates the duration of the attack was shortened, the pyrexia lessened, and the throat symptoms especially benefited." Sulpho-carbolate of zinc is also used with benefit, in the vomiting of pregnancy, with small doses of calomel.

Thus far, in my consideration of the sulpho-carbolate of zinc, it has been used in combination with bismuth, and the question that naturally presents itself is: Whether the action is obtained from the bismuth or the sulpho-carbolate? I have used it alone in treating diarrhœa, and have obtained very satisfactory results. It has been used by other practitioners, and at present some of our leading pharmacists are putting up the drug in the form of a tablet containg from one-half to two grains. It has been found, by my experience at least, that the sulpho-carbolate will act better in bowel complaints if combined with bismuth or pepsin. Any one of these drugs will act nicely alone in many cases, but, by their combination, we have a much more reliable and active prescription.

This constitutes the main portion of the literature now extant in relation to the use of sulpho-carbolate of zinc, and, in summing up the whole subject, entirely from a clinical standpoint—not a theoretical one—I am more than ever convinced of its usefulness and value in summer complaints and septic fevers.

I am very forcibly impressed with the saying, "Never be the first by whom the new is tried, nor yet the last the old to lay aside." It is the duty of every practitioner in medicine to seek and search for those remedies that will afford prompt and permanent relief, all "pathy" being laid aside; but it is not well to take up every new remedy that may be recommended by this, that, and the other man, unless a scientific and practical reason can be given for its use. *Clinical experience* in the use of drugs is the best way to decide their usefulness, and, no matter how plausible the theory may be, we must be guided by it in their use. The medicinal value of the sulpho-carbolate of zinc and the sulpho-carbolates has been sufficiently demonstrated at the bed-side and in the clinics to firmly ingraft them among the stable remedies at the hand of every practitioner.

Authorities consulted.—Works on Materia Medica and Therapeutics by H. C. Wood, Potter, Phillips, Brunton, Waring, Bartholow, Napheys, U. S. Dispensary, Remington's Pharmacy, *Medical Times*, TIMES AND REGISTER, *Therapeutic Gazette*, *Medical News*.

ATLANTIC CITY, N. J.

FOOD AND TUBERCLE.[1]

BY EPHRAIM CUTTER, M.D., LL.D., A.M.,

Hon. F. S. Sc., London, and President American branch of same. Author of Boylston Prize Essay, 1857, on Under What Circumstances do the Usual Signs Furnished by Auscultation and Percussion Prove Fallacious. Inventor of several forms of the Clinical Microscope; first to Photograph the Morphologies of Diseased and Healthy Blood, 1876, with Tolles' one-fiftieth and seventy-fifth-inch objectives, etc., etc.

INTRODUCTION.

THE great aim of the physician should be to cure, if possible. Efforts, however praiseworthy, famous, and popular, that stop short of this, are not rounded out to full completeness and perfection. Those who advance our knowledge of causes of disease are entitled to honor and remembrance, but those who advance the cure are entitled to at least the same credit, if not more. If any one knows, or thinks he knows, the way to cure a disease deemed

[1] Being part of the discussion on tubercle, pathogeny and pathological anatomy, section of pathology—Tenth International Medical Congress.

incurable, it is his duty to make known the facts, and give opinions based on those facts; and, so long as he observes the rules of good breeding, he is entitled to a respectful hearing.

Controversy must be waged on *facts*, not individuals. Science is based on facts. Uniformity of opinion is impossible. Witness the want of agreement as to ether and chloroform, though used freely by all schools of medicine since their discovery.

The medical world holds a congress. Its members are expected to contribute to the common stock of knowledge, as when a congregation takes up a collection for a benevolent object. Each one gives as he has means, gold, silver, or nickel. He gives of his own. Now here, in place of money, we give ideas and histories. So I give my nickels. If, by this act, any one is treated better in consumption the contributor shall be satisfied.

CONSUMPTION IS CURABLE.

Fact 1. Docent Dr. Heitler, of the Pathological Institute of Vienna, in 1880 published an account of his having met with about sixteen thousand autopsies of persons of all ages, sex and condition, dying from all causes, in which he noted that nearly five per cent. had had consumption of the lungs which had got well, or the case had died from consumption developed in other parts of the body.

Remarks.—If this statement is incorrect, please correct it.

Fact 2. In a work on disease of the chest, published by the late Dr. W. W. Gerhard, of Philadelphia, about 1850, he speaks of the curability of consumption by Red Sulphur Springs Water.

Fact 3. About 1860 a maternal uncle of mine died, aged 66, of Bright's disease. At the autopsy were found five stellate cicatrices in the upper lobe of the left lung of old cavities. In his youth he had cough, hemoptyses, lost flesh and strength, and was said to have been consumptive. I think it was so.

Fact 4. Dr. H. I. Bowditch, son of the eminent mathematician, Nathaniel Bowditch, of Boston, well known as the author of "Bowditch's Navigator," in June, 1889, called me to his house to hear him read an account of his father's case of consumption, cured by taking a six-weeks' carriage journey. This report has been read before the American Climatological Association, and published.

Fact 5. In the appendix of this paper is published one hundred cases of consumption; twenty-one non-arrests, thirty-nine temporary arrests, and forty permanent arrests of the disease.

Remarks.—These facts convince me, and for one I cannot, in face of them, tell my patients in consumption their cases are absolutely hopeless; if I did so, these facts would contradict me.

WHAT FOOD HAS TO DO WITH CONSUMPTION.

1. The one hundred cases alluded to were all treated on food basis. Without the diet they could not have had the history reported.

2. Food causes tubercle.

(*a*) In 1858 (see "The Relation of Alimentation and Disease," by J. H. Salisbury, M.D., LL.D.: J. H. Vail, New York, publisher), six hundred swine were fed on good sweet maize. None died.

(*b*) Close to them one thousand and twenty-six hogs were fed on sour swill from a distillery. In the course of eight weeks two hundred and fifty-six died. Of these, one hundred and four were autopsied, and seventy-nine were found to have tubercle in lungs.

Remarks.—Some would say these facts are not so. Tubercle was not found. Other scientists do not report such results. All right. Just so the results of the East India commission as to ether and chloroform have been rebutted by the results of the late work of Philadelphia experts. Again, it makes a ground of difference as to what one looks for in an examination. Before our late war, 1861, emery came only from the island of Naxos, I am told. For a long time mineralogists knew of a source of a peculiar form of magnetic iron ore near Lee, Mass. After our war began, and there was a great demand for emery, some practical expert examined this magnetic iron ore locality with a view *to find* emery of better quality than the Naxos, and the discovery of it was of the greatest importance to America. So it seems the savans did not look at the subject in the right light. Would that the profession would repeat these experiments on swine, with a view to the production of tubercle, and report their results. They might not agree any better than the etherists or chloroformists, but some good would come from the work. To my mind these experiments and cases are enough to satisfy me of the causal relations of *food* in acetic acid fermentation to cause tubercle.

BUT WHAT WILL YOU DO WITH THE BACILLUS OF KOCH?

Reply.—It is found in sour fermenting food, and I photographed it in 1876 with the one-fiftieth-inch objective of Tolles. I can throw this photograph on the screen. The illustrations that accompany this paper are but a few photogravures of microphotographs that I have made; their number runs far beyond one hundred. I have the text of an essay on the pretubercular state, to be illustrated by a large number of microphotographs. This work will be published whenever the profession demands it.

This bacillus, from thirty to forty years, has been recognized by cryptogramic botanists. Some were of the opinion that it was present as an accident; others that it was a baby form of the acetic acid fermentation vegetation. It is to the honor of Dr. Koch to have settled this question as to being a baby form capable of reproduction in the baby stage. He, however, has not told us where it comes from, and has tied us up by coining bacteriology, which covers but a small portion of the micrological world. Again, his power to reproduce the disease by inoculations is due to the animalization of this innocent bacillus into a deadly power. I do not agree that tubercle is contagious. It certainly is not like small-pox, scarlet fever, diphtheria, or measles.

To my mind the whole life history of the bacillus includes the mycoderma aceti and saccharomyces cerevisiæ. To leave them out seems to me as reasonable as for me to give an account of the people I meet in this country by writing about the German babies and give no reference to the German boys and girls, men and women. Usually oak trees make more impression and do more good than acorns, though acorns should not be omitted in treating of oaks. But in this case the treatment is reversed in the writings of the bacteriological schools. Please remember this is writ—not controversially, but contributionally—as part and parcel of my own personal, practical experience, which, as a lesser light, only reflects the author quoted above. Those who will kindly peruse the appendix will see the details of treatment; those who consider these cases as idle tales—if they live long enough—may change their minds; but they cannot blame me for not having told what I knew in my time, and backing it up with original microphotography, which includes the work of the highest

power objectives ever used by man, to wit, the seventy-fifth- and the one-fiftieth-inch objectives of Tolles, and solar projection of living specimens, when circumstances permit.

ONE HUNDRED CASES.—RÉSUMÉ.

SERIES I.—*Non-arrests, 21 cases.*

(*a*) Cases that were not improved, 9.

(*b*) Cases that were on partial diet, or were too irresolute, or had bad surroundings—financial, climatic, etc., 12.

SERIES II.—*Partial arrests, 39 cases.*

(*a*) Cases that followed the treatment faithfully, 19.

(*b*) Cases that did not follow the treatment faithfully, 9.

(*c*) Cases that had bad surroundings, that died of pneumonia, etc., 11.

SERIES III.—*Permanent arrests, 40 cases.*

(*a*) Tuberculosis, 32 cases.

(*b*) Pretuberculosis, 8 cases.

NOTE.—The details of these one hundred cases have to be left out. They are made up of probably as severe a series of one hundred cases as is commonly found. Some of the permanent arrests are of twenty-five years' standing.

RATIONALE.

1. Tuberculosis is a systemic and not a local disease primarily.

2. Tuberculosis is a diseased condition or state due to the presence of a yeast in the blood with its fermentative products.

3. The yeast is introduced into the blood, through the alimentary canal, from starch and sugar in excess, and in a state of fermentation.

4. The physical micrographical conditions found in the blood of tubercular cases constitute the peculiar morphology so often alluded to. The main features are as follows:

(*a*) Spores of vinegar yeast.

(*b*) Spore collects.

(*c*) Fibrin filaments unusually large and prominent.

(*d*) Enlarged massal white corpuscles. This enlargement proceeding from the white corpuscles being unusually fertile niduses of the vegetation, called entophytal, similar examples of which abound in algæ.

(*e*) Deprivation of the red disks of their coating of neurine, thus rendering them sticky, adhesive, and singularly inclined to aggregate themselves in confused masses. At the same time they lose their color, their clean-cut outlines and are diminished in number, relatively and absolutely.

(*f*) Thrombi formed of the fibrin filaments, of the massal corpuscles, of the spore collects.

(*g*) All of the foregoing have been photographed with Tolles' objectives, from the one-fourth to his one-seventy-fifth.

5. The vegetations may exist in a latent state.

6. It may be transmitted from parent to child in the milk, but the greater point of interest is in the tuberculous diathesis, produced by the same feeding in families for generations.

7. The morphology of the blood is commonly present some time during one year before organic disease. In other words, there is a new physical sign of the pretubercular state. The senior writer has a monograph on that subject alone, illustrated with many microphotographs.

8. Food, then, is the agent of tremendous power that causes tuberculosis.

9. The treatment is based on the idea of removing the cause by ridding the blood of the presence of the yeast and its fermentative products by a process of starvation.

10. Tubercle is a secondary product—a result from embolism caused by the minute thrombi of fibrin filaments—of the massal corpuscles and of the spore collects, and also from mechanical and chemical effects of the embolism on the nutrition.

11. The breaking down of the tissues comes from a necrosis, caused by this overloading them with the products of fermentation.

12. The yeast is also found in the alimentary canal, on the skin, in the sputum, etc.

13. Flour has been raised into bread by the dejecta of third-stage consumptives.

14. The progress of the case is best watched and studied in the morphology of the blood. The spores are diminished, the filaments removed, the enlarged massal white corpuscles are reduced in size to normal proportions; the red discs acquire their normal color covering and clean-cut outlines; the fibrin filaments, are hardly visible. Thus the red discs dispose themselves in the normal manner, the more perfectly as the cure proceeds. Any deviation in the regimen is indicated by the increase of the abnormal morphological elements in the blood. As the blood improves, usually the general symptoms improve, pari passu. We have often witnessed, under treatment, the disappearance of rales of all kinds, night sweats, emaciation; the reduction of the heart to normal size and frequency of beats, simply because of taking away the load it had to carry, when the blood was filled with thrombi, and was ropy and sticky.

15. This diagnosis by blood examinations does not exclude ordinary physical explorations; it supplements them; we find that the ordinary idea of this diagnosis in the profession is that sanguinology is like urinology, and all that is necessary is to take specimens of blood, just as we do urine in other diseases, and base all our diagnosis of tuberculosis on such examinations. The very suggestion of this demonstrates how far the proposer is from having a true idea of the subject; the evidence must be collected with the least possible interval of time between the removal of the blood from its stream to the stage of the microscope; the capillary circulation is to be used; not the venous or the arterial; take blood from the radial or ulnar side of the forearm, by slight puncture with scarificator or scalpel; do not prick the finger; the student must study the morphology of the skin as well as that of the blood.

16. There are other diseases in which normal blood morphology is changed, to wit: Rheumatism, cystinæmia, syphilis, ague, etc.

17. This rationale explains the cough, where it is not due to local irritation in the air-passages, such as hyperæmiæ, ulcers, infiltrations, reflex irritations, to the presence of carbonic acid gas in excess; sometimes it is wonderful how diminishing the fermentation does away with the cough.

18. This rationale explains hemorrhages as the result of local action of vegetation on the glue tissues, the connective tissues being softened, disintegrated and broken down by the products of fermentative changes.

19. It explains the night sweats as due to the interstitial necrosis of tissues, thus throwing more work on the skin; hence the injunction to take good care of the skin and help the lungs while they are being healed.

20. The emaciation and loss of flesh and strength are only the results of the great tissue destruction going on.

21. The sputum must be studied for lung fibers, for the various crystals that are found in asthmatic conditions, and also the gravel, granular and encysted.

22. Old fashioned or fibrous consumption is due to holding of the yeast products in the stomach, to the gradual paralysis of the lungs by carbonic acid gas, with the consequent hyperplasia of the connective tissues, and to the deposit of gravel in this hyperplasia of the fibrous tissues; in this condition the blood morphology is not so much altered; the diagnosis must be made on more general grounds; the treatment is practically the same, however.

23. The condition of the liver and kidneys can be determined by watching the urine; it should be tested at least twice a week, and kept at a specific gravity of 1,015 to 1,020, free from bile, odor or deposit.

24. Physiologists say that man cannot live on beef alone; the chemist says (Gamgee) that beef contains all of the elements found in the tissues of the human body. We say, that in cases of consumption, Bright's disease, uterine fibroids, where the special case has indicated a rigid diet of beef, such a dietary has been ordered and some patients have lived on it for four years; thus the dictum of the physiologist is upset.

25. It has been sneeringly said that all that was needed if the ideas here given as to consumption are true, that a man prescribe beef and hot water; yet the contributor had his son study the general sciences four years, medicine four more, and special cases three more years, before he was willing to leave his practice in his care; the art of treating chronic diseases, even by positive food plans and judicious medication, is an extremely hard one to acquire.

26. Air is food. Yet consumptives have been cured in the rawest and dampest of climates, and so many times that we must go behind the old idea that climate was the only cause of consumption; granted that bad climate helps to cause the disease, and so also will worry, trouble, grief, assist towards death; the sending of patients away from home comforts to die elsewhere, is not the thing to be advised. If home comforts, good air and the proper food can be combined, by all means use them. This is written with the knowledge that pulmonary disease has been arrested by climate. But our aim is to cure the cases wherever they are, because many cannot afford to change their climate or to live the remainder of their lives in the Adirondacks or Colorado.

27. Remove from the atmosphere of the patients, all doubters, sneerers and those that argue, but never cure; agnostics and nihilists, not content with helping no one, they will endeavor to pull down your work.

More permanent arrests could have been secured of these one hundred cases if the patients had been left alone.

28. While encouraging the patient at all times and in all emergencies, give him to understand what he is fighting; that he must not waste his nerve forces by needless thought or worry, but to hold on persistently and wait for nature to do the work. Each case is a law unto itself. This can be seen by the study of the cases herein recorded. We are finite; death is certain. No man will ever cure one hundred per cent. of his cases—may we say of any disease?

29. If all will take hold firmly, at least fifty per cent. of tubercular cases can be cured, judging from our own clinical experience. Now that consumption is called a curable disease, the great load is lifted off, and much more will be accomplished.

30. All cases of pretuberculosis ought to be cured; because here is a condition where there has been no destruction of tissue. This is where the exception to Section 28 comes in, if the practitioners will diagnosticate the condition, treat scientifically, and the patient obey orders.

31. Of all physicians who say these plans are foolishness, and who treat their cases by morphine, maltine and whiskey, we ask for publications of cases and the percentage of cures.

32. The ability to diagnosticate pretuberculosis by blood examination, often negatively points out the seat of trouble to be in the heart or uterus, or perhaps some other organ; also, cases of uterine disease complicated with tuberculosis should not be allowed to go untreated; but, in making examination, the physician must go over the whole field, and find out all of the disease. Some of the cases in this series, years ago, would have been benefited if their uterine disease had been treated, granted the cause is systemic, for bad food is an etiological factor of uterine diseases; while treating systemically, use all of the modern means to attack the local pelvic troubles.

33. If men complain, and say this dietary is too rigid, we will only reply that the cases have demanded it, and will be very thankful when consumption can be cured by more pleasant means than we have employed.

TREATMENT.

Never prescribe raw beef.

Preparation of broiled chopped beef.—Take beef from middle of the top of the round of well-fed cattle, who were not overdriven just before death. In the handling of these chronic cases too much care may not be observed in the selection of beef; life often hangs on the smallest detail.

Cut beef into cubes one inch by one inch by two or three inches. Free from fat and connective tissue by running it through the Enterprise chopper three times, each time cleaning the fibrous tissue from the plate at the distal end of machine; or use American chopper, which is noisy, but is *the best.* Touch with the hands the muscle pulp as little as possible, as the human animal heat changes the character of the meat. Mould into cakes one inch thick, and as many inches wide as needed. Broil over bed of live coals, charcoal the best; oil or gas can be used. The beef when done should be of a very dark color outside, and when opened present a reddish, but not raw, appearance. If the beef is rightly prepared it will be pleasant to the taste. The preparation must be done by a conscientious, intelligent, and humble individual: humble, because most cooks think they know everything about cooking, when commonly they know nothing; and the one who has the work of getting ready this beef and cooking it has a position whose influence for good or bad cannot be overestimated.

Serve on hot water plate, and season with pepper, salt, lemon juice, Worcestershire sauce, and in some cases butter.

Drinks.—Drink one pint of spring or distilled water, that has been raised to the boiling point, one hour before each meal and on retiring. Cool the water to a comfortable temperature, and drink slowly. Rest till meal time; also after meals. The amount of water may be increased or diminished, as the urinometer indicates. The urine must be at 1,015 to 1,020 specific gravity, free from odor, phosphates, bile, or deposit. Drink clear tea or coffee at meals.

Baths.—Take ammonia sponge bath, one drachm to a pint of water, night or morning; or nitric acid

baths, same proportion; or aromatic sulphuric acid baths, same proportion. Quinine and salicin may be given in bath per skin. The acid baths, and especially with alkaloids, are indicated in sweats.

Exercise.—Passive, by massage, so as to confer force; also passive by riding in carriage; also by riding on a walking horse. Do not wear people out with too much walking. Sick ones need their nerve forces for something else.

Drugs.—The rule may be laid down, *that the fewer drugs given by the stomach the better.* Yet cases come where there has to be the most careful exhibition of medicines. And at times these same cases will, after taking a great deal of medicine, improve almost immediately on stopping all drugs per stomach. The integrity of the stomach must be kept at all hazards. Treating these cases one learns how to wait.

Tonics.—Salicin, strychnia, pyrophosphate of iron, cinchona, and mixtures of the mild vegetable fluid extracts. English iodide of potash in small doses in asthmatic and rheumatic complications, and in syphilis. Biniodide of mercury 1-16 gr., an admirable cholagogue. Exsiccated sulphate of soda for constipation. Boneset, etc., etc. *Each case is a law unto itself.*

In consumption, tumor, and cancer, the closer patients adhere to a rigid diet of the chopped broiled beef the better they will do. Sometimes the stomach rebels; this it does when the beef is not right, despite the protestations of the butcher to the contrary. On finally pressing the point you will disclose that the beef has been kept too long.

Again, the stomach needs firm discipline; there is a hysterical element in some cases (the word hysteria has been poorly used), which must not be catered to, but at times roughly handled. Prof. Wm. Goodell tells of how he stopped a patient vomiting by giving her a most cruel scolding. The rule is this, that the closer the lines are drawn the better will the patient do. No man need expect to succeed treating chronic disease if he has to argue with his patients on the right or wrong of this procedure.

When the urine becomes normal, the blood in good order, the physician may bring in gradually some vegetable food, as toasted bread, boiled rice. It has been said we are too rigid; but, gentlemen, each case is a law unto itself, and you must feed accordingly.

THE ARISTON, Broadway and Fifty-fifth street, New York.

THE WEST INDIES AS A SANITARIUM.

By WILLIAM F. HUTCHINSON, M.D.

I HAD intended, in closing my last chapter, to have spoken a few words upon the subject of clothing to be worn in the tropics and the amount of baggage to be taken.

In the first place, voyagers may place themselves entirely at ease in respect to custom-house authorities. All manner of courtesy is shown to tourists, and trunks or bags of any kind are rarely opened, officers going through the formula of chalking with the utmost rapidity and a pleasant smile.

In fact, at Martinique, the time occupied in passing my two trunks and two cameras was inside of sixty seconds; none of the packages were opened, and, with a courteous smile, the inspector said: "We never trouble the baggage of tourists, for there is no danger of their bringing anything here to cheat customs." And, the same being the case at all the other islands, there is no possible need to abstain from carrying as many trunks as one wishes. On board ship they are swung down into the hold, no extra charge is made for their transportation, and, arriving at one or the other central points aimed at, a depot may be readily established, and small baggage taken thence in any direction.

It is difficult to estimate the value of one's own clothes when away from home. There is a sentiment of placid content in the mind of the traveler who has all the changes that he wants that goes far to make him happy, while the one who has come away with a couple of suits only, soon finds that he has made a mistake.

It is not here as in Europe, where every pound of baggage must be paid for extra, at a rate that speedily makes one's necessaries cost more to transport than himself.

All due deference is paid to luggage in the British islands, and it is expected of the transportation lines that they should carry everything free.

It is a common thing to see a great boat-load of trunks going off on board a steamer of the Royal Mail, and to be told that these belong to a single passenger, when a casual observation would have convinced a looker-on that they were the entire baggage supply from a hotel. It is totally unnecessary to economize in this direction.

Under no circumstances, and I take the liberty to repeat this admonition, should anything but woolen underclothing be worn next the skin, and, bearing in mind the fact that West India washerwomen laundry their clothes by laying them on one rock and hammering them with another, it is as well to carry a supply sufficient for the trip, as I always do, or to purchase garments upon arriving, and to present them in fee simple to the laundress who comes to collect soiled linen.

The same rule holds good with gentlemen's flannels. There is no place in the West Indies where they can be cleansed as at home, and for this reason fancy tennis and yachting flannels are rarely seen among the natives, who content themselves with plain suits of blue or gray. Garments of white linen are rarely worn. It is a mistake to suppose that they are cooler. The expense of washing and repairing would be something enormous, they are quickly soiled, and not easily replaced.

Ladies in this climate rarely wear white, except at evening parties, or for morning wraps.

One begins by being surprised at the heavy clothing people wear down here, and end by putting on something of the same kind with exceeding joy, after an attack of lumbago caught by exposure to currents of air.

Serviceable flannel dresses for the day, cashmere gowns for breakfast, woolen or silk dresses for dinner, are what is needed. These, it is true, may be procured at a very reasonable price from native modistes, but they will rarely be satisfactory to the wearer anywhere away from the town where they are bought. It is better to take all that sort of thing along.

The same with shoes. The feet of the women of these countries are larger, on an average, than those of our own, and the ladies of my party found it a practical impossibility to reshoe themselves when their own boots had given out. Carry therefore plenty of boots.

In the French islands there are milliners who get up astonishing head-gear, some of the efforts made in Martinique being, as I was assured by a fair dame of our party, equal to anything she had seen in New York.

Do not take the trouble to bring umbrellas or sunshades. They may be purchased here in infinite variety, and at a price far below those at home. Everybody carries an umbrella, either for sun or rain, and no one is disappointed in not finding a use for them.

With this dissertation on the clothes that one has to wear and needs to carry, we will fancy the long and tedious voyage at an end, and the islands of Saba and St. Eustatius in sight.

Over Little Saba, often called "Napoleon's Cocked Hat," from its singular resemblance to that article of apparel, hung soft fleecy clouds, which presently saluted us with sharp rain gusts and in a moment shone out bright again.

No one seemed to know much about these islands, and I was glad, a little later, to get hold of a book about them, and meet a gentleman who had recently been there.

Saba's little colony of two thousand or more poor negroes live like sea birds in an eyrie, away upon the volcanic peak that climbs a thousand feet farther towards the sky. There they spend their idle lives, raising a few vegetables, and occasionally building a boat for fishing purposes.

Once in a way, there is diversion afforded them, for their mountain home has a habit of occasionally exploding; the last eruption, in 1869, having been severe enough to shake up the people of St. Thomas, fifty miles away, in an energetic manner, but without making any particular impression upon their own minds.

I heard also that this gentleman had been exported from Holland to Saba to get well of chronic bronchitis, and that he preferred the bronchitis to the cure.

As there is neither an hotel nor a boarding-house, nor much of anything else on the island, there is little to buy, and it is useless for tourists' purposes.

Only a little way, however, across a sea of absolutely tranquil blue, the mountain peaks of St. Kitts assume form against the sky. Above the rugged cliffs of Mount Misery dark clouds of smoke hung thick, with here and there a vision of flame, as the crater below talked to us.

From beneath the clouds to the very water's edge stretched down the fields of sugar-cane in softest, sweetest tints of living green, divided into fields by mere difference of color. Of all rapid thorough cures for sea-sickness commend me to pictures like these. Not one of the growlers who had been so troublesome all the way out, remained; every one was joyful, well and happy, and exclamations of delight were heard on every hand, with expressions of thankfulness that they had come.

Along the sloping hill-side, excellent roads shone white among the green. Here and there tall chimneys marked sugar estates, and deep gulleys in mountain sides told of furious floods in rainy times.

At last we came in sight of Basseterre, chief town and capital of the island, whose population is some thirty thousand souls, the island, not the city. Like all tropical towns, it is prettiest from the sea, if I except the well-kept public square and the garden around the church, which are singularly attractive to eyes dimmed to out-door beauties by long northern winters.

There, in February, Marechal Niel and Jacqueminot roses were blooming in open air in serene unconsciousness of frost and snow that was good to see, and in the park avenues, tall palms with graceful waving fronds of deepest green, and long lines of mango-trees, just then in full bloom, gave no hint of winter near.

The temperature was simply perfect; neither too hot nor too cold. It was a fitting environment to the natural graces of the beautiful island we were on.

The most thorough searcher for curios failed to find anything to buy, with the exception of a few specimens of tropical fruits, and the shops, to people who had just left Broadway, were scarcely worth mentioning; but to our sea-weary passengers it was Eden, and their ecstasies over the beautiful flowers and trees recalled some early experiences of my own when the tropics were new to me too.

Hotels there are none worthy of mention; but the government has made an offer of seven thousand pounds sterling to build one, and will purchase a suitable tract of land within a short time. The report from the present place that they call a hotel, of a gentleman who stayed there a week, is anything but encouraging. He says that the proprietor has a den opening out of the dining-room, in the door of which he makes his appearance in an inebriated condition at meal-time and berates the boarders; and they have tough chicken and fish, and nothing else, for twenty-one meals a week. They do seem to need a new hotel at St. Kitts.

Dr. Wm. J. Branch, who is the chief medical officer of St. Kitts, was courteous enough to give me the following information:

Average barometer range, thirty degrees, with low tide at 4 P.M.

During the hurricane months, which are August, September, and October, there is always more or less danger of cyclones, of which, in his experience of twenty-five years, there have been but two.

Average yearly temperature is 80° F., the hottest being in September, when the range of the month is 92°, and the coldest in January, when in the morning it averages 69°.

The average rainfall is sixty-two inches, being largely confined to the rainy season, which comprises the three months before mentioned. During this time the trade winds cease to blow, and rain falls, not continuously, but in frequent sharp showers. This is also the sickly season, prevalent diseases being diarrhœa and dysentery.

In all, to a population of thirty thousand, there are seven medical men, all of whom must have British qualifications; but, while it is essential that these qualifications should be held by any one before he can receive a government appointment, there would be no objection to any person holding a really good American degree practising in the island, as he would be backed up by the profession.

It should be borne in mind, in calculating the ratio of doctors to the people, that by far the greater number of the latter are poor blacks, who can afford to pay little or nothing, and it is therefore almost necessary that government appointments should be held, in order that the practitioner may live.

Fees are one dollar, each visit, within a mile, with a dollar mileage.

For obstetric cases, twenty-five dollars, including one month's attendance.

Surgical operations will vary as elsewhere, excepting that operative midwifery is fifty dollars. For surgery ether is almost always used, having taken the place of chloroform of late years.

There are no suits for malpractice. In the list of births and deaths, we find among the former for the quarter ending September 30, 1889, a total of births of three hundred and twenty-four, of which one hundred and seventy-five were illegitimate. It would not be fair, however, to permit this immense proportion

of illegitimate births to go out without some explanation. The fact is that, among a population with so large a proportion of blacks, the standard of morality is invariably low, and when, in the official report to his government, the chief medical officer finds it necessary to say, as he did on the 15th of March, 1884, that the polyandrous and polygamous system prevails almost universally amongst the peasantry at these islands, active prostitution is largely carried on in Basseterre, and the system of free love circulates among the peasantry, there can be, I think, no more striking commentary upon the condition of sexual matters made, and no further reason needed.

There is an excellent hospital, named for a former governor, Cunningham. It has one hundred and thirty beds, of which fifty are surgical, with well-ventilated, cleanly wards, furnished with neat iron bedsteads, and there is every evidence in and about it of careful and attentive supervision and skilful medical service.

One great drawback to the Cunningham Hospital is the mixed character of the institution. It is both a poor-house and a hospital, and this unfortunate mixture runs the death-rate up beyond its normal height. Again, it is a building for the reception of lepers, of whom I saw several therein; and these certainly deter other people who need hospital attention from going there. I trust that the time will soon come when throughout the West Indian islands sufferers from this loathsome disease will be isolated, and kept so. At present, among the most unpleasant sights are the ghastly apparitions of misery that meet one's eye, so full are the streets of sufferers from this awful malady.

There can be no doubt that the government—by which I mean the English Colonial Office—ought to provide such accommodations for its wretched subjects as will prevent any danger of the spread of this disease.

While I am upon this subject, leprosy, I feel inclined to ventilate modern opinions for and against the contagiousness of this disease.

I have before me an official inquiry made by the government of Trinidad into the condition of that island as affected by the disease, which presents features of the greatest interest. There is no doubt as to the fact that leprosy is increasing in the islands and decreasing in Norway, where simple precautions of isolation have procured a diminution of one-half the number of lepers in thirty-three years. On the other hand, it is about the same number of years ago that the first case was introduced into the Sandwich Islands, and on a single one of them are crowded together nearly forty thousand sufferers.

Contagion or non-contagion of leprosy has been long a well fought subject, and there are strong arguments upon both sides; but the crowning fact that seems to end the matter is that, where segregation is practised, its victims steadily become fewer, all other things being equal, and, without it, as steadily increase.

Let us go back a little in our steps, and with just a few words we will take leave of St. Kitts. It has the honor of being the mother colony of the British West Indies, having been settled by Sir Thomas Warner in 1623.

Excellent water is brought from the hills five miles away, and there is plenty of it. There are beautiful drives, and equally attractive rides, the most popular being the drive and climb up Monkey Hill, a sharp elevation on the south end of the island, where was once a strong fortification, whose ruins now are held by a garrison of apes.

Nevis goes fairly with St. Kitts, from which it is separated by a narrow arm of the sea, scarcely a mile wide. One should not leave St. Kitts without a visit to Nevis; for, beside the most wonderful hot spring and bath in the Windward Islands, there are the ruins of a once magnificent hotel, the birthplace of Alexander Hamilton, and a quaint old church in which I found the following record: "Married, March 17, 1783, Horatio Nelson, Esq., Captain of His Majesty's Ship 'Boreas,' and Frances Nesbitt, widow."

Besides all this, the visiting American, if he is as fortunate as I was, will meet cordial hospitality from Dr. Huggins and his charming Yankee wife.

So Nevis should by no means be neglected.

ST. KITTS, MARCH, 1890.

Society Notes.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting, September 24, 1890.

THE VICE-PRESIDENT, JOHN B. ROBERTS, M.D., IN THE CHAIR.

RIB-FRACTURE FROM MUSCULAR ACTION, WITH FORTY COLLECTED CASES.

DR. JOSEPH P. TUNIS read a paper with the above title.

As fractured ribs form no inconsiderable part of those fractures which physicians are called upon to treat, some remarks on their rarer etiology may not be out of place. It is the object of this paper to report two recent cases where ribs were fractured, apparently from muscular action alone, and to collect together those which have already been published.

Different views have been expressed on the question whether a fracture can be caused, by muscular action alone, in bones not previously diseased. Some have positively denied such a possibility, as Richerand,[1] Vidal (de Cassis),[2] and Hornidge.[3] Others maintain a non-committal silence, as Petit,[4] Duverney,[5] Monteggia,[6] Desault,[7] and Bryant.[8] But the majority of surgical writers admit the possibility of such fracture, as Samuel Cooper,[9] Nélaton,[10] Malgaigne,[11] Purch,[12] Gurlt,[13] Follin,[14] Marchaud,[15] Erich-

[1] Nosograhic Chirurgicale. Paris, 1815, tome iii, p. 13.
[2] Traité de Pathologie ext., 2d ed., tome ii, p. 215.
[3] Holmes' System of Surgery, Amer. ed., 1881. Art. "Fracture." Vol. i, p. 481.
[4] Traité des Maladies des Os. 3d ed., 1736, tome ii, p. 11.
[5] Traité des Maladies des Os (publié par Sénac), 1751, tome i, p. 15.
[6] Instit. Chir., Part II, 1803.
[7] Œuvres Chirurgicales, 1798 (publié par. X. Bichat), tome ii, p. 320.
[8] Bryant's Surgery, Amer. ed., 1873, p. 828.
[9] Cooper's Surgical Dictionary, S. A. Lane's ed., 1861, vol. i, p. 683.
[10] Pathologie Chirurgicale. Paris, 1844, tome i, p. 635.
[11] Treatise on Fractures, trans. by Packard, 1859, p. 38.
[12] Des Fract. de Claviculi par Action Musculaire. Ann. Cliniques de Montpellier, par A. Alquin, No. 4, Avril, 1857.
[13] Handbüch der Kurckenbrucken, Berlin, 1862, vol. i, pp. 228–254.
[14] Follin et Duplay: Traité class. de Pathologie externe, 1875, tome ii, p. 748.
[15] Dict. Encyclop. des Sci. Méd., Art. "Fractures" (Pathologie Chirurgicale). Paris, 1881, vol. iv, p. 17.

sen,[1] Agnew,[2] Ashhurst,[3] Hamilton,[4] Gross,[5] Packard,[6] Stimson,[7] and others. We have the best authority, therefore, for believing that bones have been and will be fractured by muscular action alone, even in persons of good constitution. The elder Gross writes: "A diseased state of the bone is not at all necessary to the production of this accident."[8] Gurlt,[9] having collected a large number of the so-called "spontaneous fractures," confirms this view. Simon Paul,[10] also, and Professor Stimson in a recent *Treatise on Fractures.*

Moreover, in certain[11] instances where an autopsy was possible from some extraneous cause, a careful examination of the bones has demonstrated their healthy condition.

Of the one hundred and thirty-three cases collected by Gurlt, the majority had some condition present which rendered them more easily broken. Any condition which lowers the normal consistency and resistance of the bone structure must predispose to fracture, as osteomalacia,[12] rickets,[12] cancer,[12] syphilis,[12] scrofula,[12] advanced age (*i. e.*, over fifty),[13] or atrophy from continuous confinement,[14] etc. "In short, all diseases dependent upon cachexia more or less predispose to the occurrence of fracture," says Hamilton.[15] When some such cause is present the existence of a fracture from muscular action can be more readily accounted for. There are, however, numerous cases on record where such accidents have occurred in healthy individuals, the determining cause of fracture being muscular action, and the mechanism varying with the anatomy of the bone affected. If these conditions are true for other bones, why may they not be equally true for the ribs?

The ribs offer three factors favorable to fracture: *First*, by their shape, being long, thin bones; *second*, by their position, firmly attached at the vertebral, and more or less free to move at the sternal end, and *third*, by reason of the powerful muscles attached to their bodies. They are "elastic arches,"[16] it is true, and capable of considerable movement. But their elasticity has its limit, and their movement is dependent entirely upon the muscles attached to them. Of these muscles the diaphragm appears to be the most favorably situated to produce rib-fracture. Centrally attached by its crura and ligaments to the vertebral column, it is connected at its circumference "on either side, to the inner surface of the cartilages and bony portions of the *six or seven inferior ribs* interdigitating with the transversalis."[17] Take, for example, the ninth rib. If the diaphragm should contract it would draw the anterior third of this bone toward the vertebral column, the other two-thirds being held more or less firmly *in situ* by the serratus magnus, attached posteriorly, the internal oblique, the transversalis, and the intercostals. This contraction of the diaphragm continuing, if sufficiently powerful, would fracture the bone like a bent bow at the point of least resistance. Where the attachment of the serratus magnus left off, would seem a favorable seat for such a fracture. Has the diaphragm sufficient force to accomplish this? It has sufficient force to free the throat or bronchi of irritating material, almost approximating the sternum and the vertebral column in dyspnœa, often demonstrating clearly its power in membranous croup. It can eject forcibly the contents of the stomach on occcasion, or cause great distress, and even death, from obstinate hiccough. Well supplied with blood, exercised day and night, its actions uncontrolled, we may with some reason believe that, suddenly exerting all its force on three or four ribs, one or more may fracture. Certain it is that the ribs to which the diaphragm is attached are most frequently fractured (almost the only ones), and the circumstances which excite the action of that muscle are most often given as the exciting cause of the accident.

Above the sixth rib, other muscles enter into the mechanism of fracture. In the case which Dr. C. B. Nancrede[1] has reported, and in Dr. Bird's case,[2] where the second rib yielded under unusual muscular strain, the pectoralis minor seems to have been the most probable determining cause, as this muscle[3] is attached to the third, fourth, and fifth ribs, often to the second, and is inserted into the coracoid process of the scapula. If the scapula were firmly held in place by the powerful muscles attached to it, the pectoralis minor would be in a position to act with the advantage of leverage. This muscle, or the serratus magnus,[4] would draw the anterior third of the bone away from the vertebral column, directly opposite to the movement of the lower ribs under the action of the diaphragm. Thus the mechanism in the large majority of these cases may be reached. Some still remain which require a special explanation from the facts of the case.

Malgaigne[5] was the first to call attention to the possibility of rib-fracture from muscular action. He had collected eight examples (Nos. 1, 13, 14, 15, 34, 35, 36, and 37), of which he wrote: "I think it very probable that in all these cases the ribs had undergone more or less of the atrophic thinning of which I have before spoken; and that the fracture was induced by muscular action, which, in coughing, approximates the sternum and the spinal column, just as exterior pressure does." Paulet,[6] in his article "Ribs," of the Encyclopædia, gave six more examples (Nos. 2, 3, 4, 5, 17, and 18), and mentions five cases where the *costal cartilages* were ruptured by muscular violence.[7] Théophile Mazeille, in 1882, brought together twenty-four cases in tabular form.[8] Since then, so many additional cases have been reported that they number now at least forty.

The two recent cases here given have not been previously reported:

Mrs. D., fifty-two years old, in March, 1890, came to the Episcopal Hospital Dispensary, seeking relief

[1] Science and Art of Surgery, Amer. ed., 1869, p. 224.
[2] Principles and Practice of Surgery, 1st ed., vol. i, pp. 718 and 852.
[3] Principles and Practice of Surgery, 4th ed., 1885, p. 223.
[4] Fractures and Dislocations, 5th ed. Philadelphia, 1875, p. 30.
[5] System of Surgery, ed. 1859, vol. ii, p. 104.
[6] International Encyclopædia of Surgery, 1884. "Causes of Fracture." Vol. iv, p. 3.
[7] A Treatise on Fractures, 1885, p. 93.
[8] Ibid. [9] Ibid.
[10] Des Fractures Spontanées, 1886, Paris, pp. 12 and 13, etc.
[11] Herard (Case 2), L'Union Médicale, 1855, p. 459.
[12] Principles and Practice of Surgery, Ashhurst, 4th ed., 1885, p. 224.
[13] M. Sappey, Traité d'Anat. Descriptive, 3d ed., 1876, tome i, p. 66.
[14] Dict. Practical Surgery, Heath, 1886, Frag. Ossium, vol. i, p. 573.
[15] Fractures and Dislocations, 5th ed., 1875, p. 29.
[16] Gray's Anatomy, Amer. ed., 1883, p. 220.
[17] Gray's Anatomy, new Amer. ed., 1883, p. 402.

[1] See Case 7, Class i.
[2] See Case 42, Class iii.
[3] Gray's Anatomy, p. 410.
[4] Ibid., p. 409.
[5] A Treatise on Fractures, translated by Packard, 1859, p. 348.
[6] Dict. Encycl. des Sc. Med. Art. Côtes, p. 61. Paris, 1877.
[7] Ibid., p. 84.
[8] Thèses de l' Ecole, No. 263: "Des Fractures de Côtes par Action Musculaire." Paris, 1882, p. 45.

CLASS I.—HEALTHY BONES.

No. of case.	Reporter.	Year.	Reference.	Sex	Age	Physical condition.	Exciting cause.	Position of patient.	Diagnosis, side, rib, and site.
1	R.J. Graves,	1833	Dublin Journ. Med. and Chem. Sci, vol. iii, p. 355.[1]	F.	47	Strong, vigorous, and muscular; with an attack of bronchitis.	Violent cough.	Unrecorded.	Left side; ninth or tenth; in anterior third.
2	Herard,	1855	L'Union Médicale, tome ix., No. iii. p. 447.[2]	F.	22	Seven months gone in pregnancy; bronchitis for six months.	Violent cough.	Unrecorded.	Left side; eleventh rib; middle third.
3	Piffard,	1860	Gaz. des Hôp., No. iii, p. 442.	M.	49	In excellent health, except for a tenacious cough.	Attack of coughing.	Standing leaning against a door	Right side; eleventh rib; middle third.
4	De Groninger,	1861	Archiv der Heilkunde, vol. i, p. 473.[3]	M.	45	Strong, healthy laborer.	Effort to prevent falling.	While walking home.	Right side; seventh and eighth; middle third.
5	Podrazki,	1872	Oesterreich Zeitschrift für prakt. Heilkunde, No. 18.	M.	50	A vigorous man; a few drops of water in his larynx.	Coughing to prevent choking.	Eating his dinner.	Right side; tenth rib; middle third.
6	Podrazki,	1873	Oesterreich Zeitschrift für prakt. Heilkunde, No, 44, October.	F.	30	Woman of good constitution.	Sneezing.	Unrecorded.	Eleventh rib; anterior third.
7	C. B, Nancrede,	1874	Philadelphia Medical Times, No. 4, p. 535.[4]	M.	44	"A singularly healthy, vigorous man."	Straightening a scythe	Standing bent over.	Right; second rib; 2½ inches from sternum.
8	Chenery,	1878	Boston Medical and Surgical Jour., vol. xcviii, May.[5]	F.	23	Pregnant; had bronchitis; general condition good.	Coughing.	Unrecorded.	Right side; "lower fixed rib."
9	Brookhouse,	1879	The Lancet, London, No. i, p. 503.[6]	F.	36	Highly neurotic; in good health; nine months gone in pregnancy.	Coughing.	Sitting sideways in bed.	Left; sixth; 2 inches from angle.
10	Desnos,	1885	Bull. et Mém. de la Soc. Méd. des Hôp. de Paris, vol. ii, p. 311-312.	M.	30	Chronic bronchitis, asthma, and emphysema.	Coughing.	Unrecorded.	Left; ninth; in front of angle.
11	D. C. Hawley,	1890	Medical Standard, Chicago, vol. vii. No. 5, p. 135.	F.	31	Suffering from chills and fever.	Vomiting.	Resting upon her elbow in bed.	Right side; ninth rib; anterior third.
12	Edward Martin,	1890	Unpublished.	M.	28	Slender, healthy, muscular man.	Muscular strain.	Bent over lifting a heavy weight.	Left side; sixth rib; sternal angle.

[1] Also, Medical and Surgical Review, October, 1833; or Amer. Journ. Med. Sci., vol. xiii.-xiv., No. 26, 1834, p. 553.
[2] Also, Med. Times and Gazette, vol. ii, 1860, p. 441 (a review).
[3] Also, Med. Times and Gazette, 1861, vol. i, p. 450.
[4] Also, Centralblatt für Chirurgie, 1874.
[5] Also, Med. Times and Gazette, 1878. No. 2, p. 88.
[6] Additional information secured from a personal letter.

CASE II.—DISEASED BONES.

No. of cases.	Reporter.	Year.	Reference.	Sex	Age	Predisposing causes; physical conditions.	General condition.	Exciting cause.	Position of patient.	Diagnosis, side, rib, and site.
13	Nankevill,	1835	London Med. Gazette, vol xvi, July.	F.	63	Advanced age, malnutrition, and chronic bronchitis.	Weak and emaciated.	Coughing.	Lying in bed.	Left; fifth and sixth; anterior third.
14	Nankevill,	1835	Ibid; or Am. Journ. Med. Sci., vol. xvii,-xvii, p. 520.	F.	59	Advanced age, malnutrition,	Much emaciated.	Coughing.	Unrecorded	Left; tenth and middle third.
15	Berard,	1841	Lancette Francaise, 1841, No. 16.	F.	54	Suspected of syphilis, advanced age, and bad living.	Weak and emaciated.	Coughing.	Unrecorded	Left: ninth, tenth, and eleventh; anterior third.
16	Maingault,	1852	E. L. Beylard, Du Rachitis, etc. Paris, 1852, p. 76-83.	F.	35	Osteomalacia or rickets and malhygiene.	Anæmic.	Coughing.	Unrecorded	Three ribs.
17	Denonvilliers,	1853	L'Union Médicale, tome vii, No. 65, p. 258.	M.	55	Advanced age, pulmonary emphysema.	Emaciated.	Turning in bed.	Lying at full length.	Left; ninth; middle third.
18	F. Castella,	1861	Gaz. des Hôpitaux, No. 150, p. 599.	M.	39	Hereditary scrofula.	Strong looking.	Sneezing.	Seated at a bar.	Left; ninth; middle third.
19	Philip Miall	1871	British Med. Journ., Jan. 1871, p. 8.	F.	53	Tuberculosis, advanced age, pregnancy (primipara).	Anæmic.	Coughing.	Unrecorded	——; tenth; middle third.
20	Alexander,	1871	Ibid., p. 61.	F.	55	Advanced age, malnutrition, chronic bronchitis.	Weak.	Coughing.	Sitting at the fireside.	Left; eleventh; middle third.
21	Gillette,	1876	L'Union Médicale, No. 75, p. 1017.	M.	56	Tuberculosis and advanced age.	Third stage of phthisis.	Coughing.	Unrecorded	Left; eleventh; middle third.
22	Despres,	1882	Gazette des Hôpitaux, 1882, No. 25.	F.	53	Advanced age, chronic bronchitis.	Fairly good	Severe cough	Lying in bed.	Left; eleventh; anterior third.
23	Doit,	1882	L'Union Médicale, Paris, 1882, xxxiii, 676.	M.	59	Advanced age, tuberculosis, and syphilis.	Good.	Violent cough.	Sitting at his tailoring	Left; sixth; anterior third.
24	T. E. Underhill,	1884	London Lancet, 1884, vol. i, p. 1162.	M.	54	Great muscular development, advanced age.	Excellent.	Violent muscular action.	Erect, wielding a pick.	Left; sixth, seventh, and eighth; middle third.
25	H. C. Wyman,	1885	Journal American Med. Assoc., Chicago, No. 5, p. 512.	M.	72	Advanced age, bronchitis.	Good.	Sneezing.	Standing upright.	Right; eighth; near angle.
26	M. Desnos,	1885	Bull. et. Mém. de la Soc. Médicale des Hôp. de Paris, ii, 310-317.	M.	66	Advanced age.	Chronic bronchitis.	Violent cough.	Sitting on a bench.	Left; eighth; middle third.
27	Antony,	1886	Bull. et Mém. Soc. des. Hôp. de Paris, vol. iii, p. 247.	F.	63	Advanced age.	Chronic bronchitis.	Violet coughing.	Unrecorded	Right; ninth; middle third.
28	Ladroitte,	1886	La France Médicale, No. 95, vol. ii, p. 1133-1135.	M.	56	Advanced age.	Excellent.	Unusual muscular action.	Standing.	Right; fifth, middle third.
29	C. Tisne,	1886	Ann. Méd. Chir. Franc. et Etrang., Paris, ii, 286-293.	M.	68	Advanced age.	Chronic bronchitis.	Coughing.	Unrecorded	Eighth; at junction of middle and posterior third.
30	A. Kunos,	1886	Ann. Soc. de Méd. d'Anvers, xlvii, 383-386.	F.	66	Advanced age, small bones and large muscles.	Excellent.	Unusual muscular action.	Lying in bed.	Eighth or ninth; at junction of posterior and middle third.
31	S. A. Fisk,	1888	Boston Med. and Surg. Journ., No. 119, p. 325 (and a letter).	M.	32	Tuberculosis, diabetes insipidus, inflammatory rheumatism.	Vigorous looking.	Violent cough.	Seated sideways on a chair.	Right; tenth; middle third.
32	E. C. Masser	1890	British Med. Journ., London, vol i, p. 953.	M.	54	Advanced age, Bright's disease, bronchitis.	Feeble looking.	Coughing.	Unrecorded	Left; eighth; middle third.
33	Tunis,	1890	Unpublished.	F.	52	Suspected congenital syphilis, advanced age.	Emaciated, underfed, and overworked.	Coughing.	Lying on a sofa on her right side.	Left; tenth; middle third.

for a hacking cough and severe pain in the left side. Her emaciated figure, gaunt features, and parchment-like pock-marked skin, gave evidence of long-continued, mal-hygiene and mal-nutrition. Her family and personal history were negative, but her broad, flat nose, with deep triangular markings running off from it, made us suspect inherited syphilis. For the last three years she had suffered from rheumatism, but could remember no other sickness. Three out of her four children died in childhood. She stated that eleven days previous to her coming to the hospital, while lying on her *right* side on a lounge, she was suddenly seized with a violent fit of coughing. While coughing she felt a severe knife-life pain in her *left* side, and at the same instant something snapped "like a little stick." Not thinking it possible that she could have fractured a rib in such a manner, a sedative cough mixture was prescribed, and she was directed how to apply a turpentine stupe.

She returned the next day unimproved, and complaining bitterly of the pain in her side. A thorough examination of the chest then showed positive signs of fracture, of the tenth rib on the left side, about its middle. Dr. H. C. Simes, Dr. George Boyd, Dr. W. R. Lincoln, Dr. F. Rudderow, and Dr. L. H. Adler, Jr., afterward confirmed the diagnosis. There was no evidence of any direct violence in this case, and the patient gave a very clear account of the accident. Her cough was due to an attack of bronchitis. Strapping the affected side brought immediate relief, and she was discharged cured in six weeks.

Dr. Edwin Martin has kindly furnished me with the particulars of the following case, which was treated recently at the University Hospital Dispensary:

Fracture of Rib from Muscular Contraction.—James C. H., aged twenty-eight (about), a slender-built, muscular man, of healthy parentage, by occupation a laborer. By lifting a heavy beam, together with several workmen, the weight was suddenly thrown entirely upon himself. He was stooping slightly forward at the time, with his fingers grasping the bottom of one end of a beam; he was subjected to a sudden, violent strain. He heard a distinct crack, and felt an acute pain in the left side, as though a knife had been thrust in. The pain was greatly aggravated by breathing or coughing, and he distinctly perceived a sense of grating on motion. On examination, the sixth rib was found fractured at its sternal angle. There was no deformity, no ecchymosis. The patient was strapped, and made an uninterrupted recovery. There was no history of unusual brittleness in the bones of himself or in any member of his family.

For convenience, the collected cases, forty in all, have been divided into three classes.

CLASS III.—CASES WITH INCOMPLETE RECORDS.

CASE. 34.—Benjamin Gooch (*Medical and Chirurgical Observations;* Appendix. London, 1767. p. 53) reports: A young man at the hospital at Port Mahon, suffered from necrosis of a rib, caused by a kick. When nearly recovered he fractured a rib on the opposite side, during a paroxysm of coughing. He was much emaciated. Four surgeons diagnosed a complete fracture.

CASE 35.—M. C. Broussais (*Jour. Hebdomad.*, October, 1835, p. 107), at the examination at Val-de-Grace, of a patient suffering from chronic pneumonia and hypertrophy of the heart, found on the fourth rib a tumor of the size of a pigeon's egg, not painful. A fracture was diagnosed.

CASE 36.—M. Christy, senior surgeon of the hospital at Port Mahon, assured Malgaigne that he knew a gentleman who had fractured a rib in a violent effort at coughing (*vide* B. Gooch), (or *Archiv Générales*, Paris, 1838, vol. ii., 3d series, p. 272).

CASE 37.—Monteggia (*Institutioni Chirurgicale:* "Fracture," par. 17 and 23, 1802) saw a man about fifty, who had fractured a rib while coughing. The sound produced at the moment of fracture was heard by all in the room.

CASE 38.—Hilton (*Lancet*, London, 1852, i. p. 143) mentions a man who fractured a rib by muscular contraction while mounting a spirited horse. He was treated for pleurisy at first without relief.

CASE 39.—T. Mazielle in his thesis quotes a case supplied him by Th. Angers: A hat seller, forty-one years old, was admitted to Hospital Tenon with fracture of two ribs, apparently from muscular effort. The patient fell forward while walking, and only his head and one hand touched the ground. Signs of fracture in posterior portion of middle of thorax. No marks of direct violence.

CASE 40.—F. D. Bird (*Australian Medical Jour.*, May, 1889, p. 195) reports a married woman, with negative history, who fractured her second rib on the left side, about one and a half inches from the costal cartilage, while lifting one side of a heavy chest.

Deductions.—1. Forty cases having been reported, we may reasonably expect to hear of others, perhaps see them ourselves.

2. Of these accidents, more than one-fourth have occurred in individuals of apparently sound constitutions.

3. The left side has been most often affected, and either the middle or anterior third of the rib the usual position of the fracture. Of forty-nine fractures only five have occurred about the sixth rib. The great majority have been among the lower six (omitting the twelfth).

Rib Affected.

Second rib	2	Eighth rib	7
Fourth "	1	Ninth "	7
Fifth "	2	Tenth "	6
Sixth "	5	Eleventh rib	7
Seventh"	3	Unrecorded	9

Side Affected.

Right side	10
Left "	19
Unrecorded	11
Total	40

4. The exciting causes have been; Coughing (twenty-five), muscular effort (eleven), sneezing (three), and vomiting (one). The determining cause has been the action of the muscles, unless thirty-four observers have been deceived by the testimony of patients who could gain nothing by such deceptions.

5. Herard reports the youngest example (Case 2) of this accident, a woman, twenty-two years old. No case has been published younger than this—no doubt on account of the great elasticity of the ribs in youth.

6. Of these forty cases, two died of some intercurrent affection. The remaining thirty-eight made a complete recovery in the usual time.

7. More men (twenty-two) have suffered than women (seventeen), and the average age has been forty-eight years.

The difficulty and doubts which have attended the diagnosis of many of these cases ought to disappear, as more and more examples of this accident are re-

ported. Already, by the consent of the majority of surgeons, and by the evidence of accumulated cases, the possibility of rib fracture from muscular action, even in persons of sound constitution, seems sufficiently proven.

Discussion.—Dr. O. H. Allis: I have been both interested and instructed in the paper. I am interested in the fact that so many fractures of the ribs produced by muscular action have been reported by the speaker. I think there are no long bones, where fractures from muscular action are so infrequent. I think that fractures of the humerus from muscular action occur in the proportion of at least ten to one as compared with fracture of the rib. The reason of this is, I think, because the ribs are so greatly protected. I think that the reason the diaphragm does not fracture the ribs more frequently is because its fibres are all short. There is a central tendon which divides the muscle. If it arose at the back and extended to the front, fractures of the ribs would probably be more frequent.

The subject of muscular laceration would also be a good subject to investigate. We so often find an abscess; it may be in the abdominal walls, due to laceration of one of the abdominal muscles. We see the same thing in various parts of the body. The fact that all these fractures are low down would seem to indicate that the diaphragm had a great deal to do with them, and, possibly, that the abdominal muscles also acted with it.

RAILWAY SURGEONS' ASSOCIATION.

The Pennsylvania Co. Railway Surgeons' Association held its annual meeting in the parlors of the Seventh Avenue Hotel, at Pittsburgh, Pa., on Tuesday, the 14th day of October, with a good attendance.

Dr. J. J. Buchanan read a valuable paper on

WHEN TO AMPUTATE,

in which he limited his subject-matter solely to injuries (not disease), requiring amputation. He said that it is better to wait until shock subsides. That in case of fragments of limb below point of crushing, and still adhering, they should be immediately *removed at seat* of injury; ligate all bleeding vessels, and then wait until shock subsides before proceeding to amputate.

Drs. Murdock, Ridenour, and others doubted the propriety of this.

Drs. Ridenour, Larkin, Mosael, and others favored immediate amputation, provided patient was not in a state of collapse, as in cases where a large joint—such as the knee—is involved in the injury, the shock will naturally become deeper the longer you wait.

S. S. Thorn, M.D., of Toledo, reported a case of cerebral surgery, wherein a patient's life was saved by a resort to trephine, after weeks of suffering following a slight injury to head.

The retiring President, Dr. J. B. Murdock, of Pittsburgh, Pa., delivered a fine valedictory on the benefits resulting to the railway surgeon from these meetings of the Association. He made the excellent point that each and every railroad surgeon should attend these meetings; that those who did not, belong either to that *dangerous* class who know too much, or else to the *sloth* and sluggard—both not good for their position.

The following officers were elected for the ensuing year: *President*, S. S. Thorn, M.D., of Toledo, O.; *Vice-President*, Dr. Milo, of Newcastle, Pa.; *Secretary and Treasurer*, S. P. Post, of Canton, O.; *Executive Committee*, Dr. Larkin, of South Chicago, Ill.; Dr. A. W. Ridenour, of Massillon, O.; Dr. J. B. Murdock, of Pittsburgh, Pa.

Society adjourned to meet in Chicago in the third week in October, 1891.

Treatment of Chronic Bright's Disease.—In the Section for Internal Medicine, at the International Medical Congress of Berlin, the subject of the treatment of chronic Bright's disease was brought forward for discussion. Dr. Lépine, of Lyons, opened the discussion. The danger of a chronic nephritis being the insufficiency of the renal secretion, the principal indication is to overcome this insufficiency. But in favoring increased secretion of urine care must be taken not to put too much work on the already diseased kidneys. On the other hand, it is necessary to keep up the nutrition. We must nourish the patient and stimulate the secretion of urine without irritating the kidneys—two indications which seem to be opposed, but which can yet both be satisfied. In the matter of food, we must diminish the amount of albuminoids relatively to the hydrocarbons and fat, since the waste products of the latter are not excreted by the kidneys. Although it is theoretically somewhat too rich in albuminoids, nevertheless milk is the best food for the patient with kidney disease. It contains no waste materials, and all the nitrogenous substances are utilized in the economy; it is rich in fats, contains nothing which can irritate the renal epithelium, and finally is diuretic. But it is usually impossible to keep the patient on a pure milk diet, and it will be found necessary to supplement it with digestible vegetables, bread, farinaceous foods, etc. It is, above all, important to attend to the condition of the digestive functions, since when the digestion is poor many toxic principles are formed which will serve only to irritate the kidneys. Although albuminuria is a symptom of transudation and apparently independent of the amount of secretion, yet we do not know what the relation between the two is, and it is therefore prudent to restrict the patient in the use of eggs, and sometimes of fish, if these appear to increase the amount of albumin excreted. To favor diuresis we may have recourse to slightly alkaline mineral waters, which sometimes are sufficient for the purpose. But when the diminished secretion is accompanied by signs of cardiac weakness we must employ heart stimulants. In the first rank of these remedies the author placed crystallized digitalin. This should, however, be given with great caution, and only every other day or even at longer intervals, in order to insure its complete elimination. Caffeine, in doses of at least fifteen grains hypodermically, was sometimes of service. Strophanthus should not be given, since it had a tendency to irritate the kidneys. Iodide of potassium, which is a diuretic, is chiefly indicated when there is arterio-sclerosis. The author was opposed to the employment of vapor-baths in cases of dropsy, fearing uræmia, but he always advised rest in bed, by means of which an even temperature of the skin could be maintained. Of course it was necessary to avoid all exposure to cold and wet. Uræmia was what every patient with chronic Bright's disease had most to fear.—*Med. Record.*

Dr. B. H. Diehl, of 2151 Park avenue, Philadelphia, died October 17. He was a graduate of the Medico-Chirurgical College, and had been in practice but little more than a year.

The Times and Register

A Weekly Journal of Medicine and Surgery.

New York and Philadelphia, Oct. 25, 1890.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

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DR. BARTHOLOW'S RETIREMENT.

MUCH surprise was occasioned last week by the announcement that Dr. Roberts Bartholow had been requested by his colleagues to resign the chair of Materia Medica and Therapeutics in Jefferson Medical College. The reason for this step, it is intimated rather than distinctly stated, lies in a degree of mental aberration which is alleged to render Dr. Bartholow unfit for the position he occupies. This is indignantly denied by him, and the resolutions adopted at a meeting of the students affirm that his teaching is fully up to the standard of his previous efforts.

If it be true that Dr. Bartholow is failing, it is a kindness to retire him while there is still a chance that rest and quiet may restore him to health; and this is no less a kindness if the object is unconscious of the need for such treatment. But if, as Dr. Bartholow avers, this is simply an excuse to get rid of an undesirable associate, a great wrong has been done to him.

Under the present wretched system of organization, the teachers in unendowed medical colleges must be prepared each to "hold up his end,"—*i. e.*, to sustain his share of the common burdens in the competition with rival institutions. If a lecturer grows old-fashioned, uninteresting, or cranky, so that students desert his class-rooms for those of more popular teachers, the stern law of the survival of the fittest demands that he give place to a better. By means of this dropping out of the least desirable member, the personnel of a faculty is sometimes completely changed in a few years. Individually it may be a hardship; but the world has no use for drones or weaklings, and the interests of the institution and of its students are best considered by this plan. Nobody rests contentedly on the laurels he has won, but a fresh competitor steps into his place. Young Absalom is always eager to push old David from his throne.

But if these are the reasons for a man's retirement, it is better that they should be stated, in justice to the man displaced. For a man may cease to be popular as a teacher, and yet be still very desirable as a practitioner; while nobody cares to entrust his life to a man who is demented.

Dr. Bartholow has for many years filled a large place in the public eye. In Cincinnati he made warm friends and bitter enemies. His book on Therapeutics gave him the reputation that brought him to Philadelphia. In this work he did a great service to the profession. Coming out at a time when therapeutic nihilism was prevalent, his confidence in his methods of treatment and the emphatic language in which he couched his assertions won a hearing for him at once. Here was a man who believed in drugs, who could utter and print an emphatic "will," instead of Flint's "perhaps." There was a vigor about his therapy that "took." He used knock-down arguments in combating disease, and his forty-grain doses of quinine sometimes won the battle, where a temporizing policy would have lost. To him disease was an entity, a personal enemy, and he had full faith in his own powers. He confidently promised "cures" of all sorts of ailments, and even in the most hopeless he found remedies of "great value" in their treatment. Pity that such bright anticipations were not always realized; but we have no doubt that the percentage of recoveries for a physician imbued with such faith is far greater than for one equally skilful whose views are pessimistic. Then, too, his views were helped wonderfully by his introduction to the profession of many drugs previously used only in irregular or domestic practice. Before deciding that his views were too sanguine, it was necessary to ascertain by trial the properties of the new agents he recommended. In this Dr. Bartholow conferred a great boon upon the profession. While but little of his work will find a permanent place in the field of practice, he has exerted the most powerful and the most beneficial influence upon therapeutics of any writer of this generation.

As successor to Dr. Bartholow, it is said that the choice has fallen upon Dr. Hobart Amory Hare. Dr. Hare is a young man in medicine, his diploma bearing the date of 1884. He has repeatedly distinguished himself as an essayist, winning honorable prizes in competition with writers from all parts of the world. His selection by the Leas to fill the place of Dr. Hays as editor of the *Medical News* showed the estimation in which he was held by that influential publishing house. Dr. Hare has just issued a work on Therapeutics, which is now in the hands of a reviewer of our staff. Whether he will be able to "hold up his end" in competition with his master, Dr. H. C. Wood, remains to be seen.

And this brings on another question, more important than that of the change in a faculty chair: How is Jefferson College, with a faculty of seven active men, going to organize a three years' graded course with over five hundred students? The University finds a corps three times as large necessary. The Medico-Chirurgical College, with only one hundred and twenty-five students and a faculty of sixteen, and a thoroughly capable and efficient corps of assistants, finds it a task of such difficulty that their energies are taxed to the utmost. Either Jefferson

must open her faculty by creating new chairs and thus dividing the work, or her professors are men of gigantic mental and physical strength.

Annotations.

MATTERS sometimes turn out quite differently from what the planner expects, as has been noted by many observers before and after Burns. India has been held up as the earthly paradise of female doctors; the sex and religion of males excluding them from the zenana. But now we are told that in the Lucknow hospital the female patients turn up their small noses at physicians of their own sex, and prefer to enter the wards presided over by men. It is true that these patients are usually of the lower castes; but human nature is the same in every station; and it is quite likely that the Ranee or Sultana will also prefer a male medical adviser, and find a way to secure his services, spite of caste or Koran.

THE *Inquirer* proposes that in view of the certainty with which typhoid fever can be prevented from spreading, by disinfecting the excreta of typhoid patients, an association of citizens shall be formed to look after the disinfection of cases occurring along the Schuylkill river. By this means all danger of infection from that source could be obviated.

The idea is a good one, and could easily be carried out at an expense that would be trifling beside that of constructing an aqueduct from Trenton. But would it not be well to begin by enforcing such a system within the city, and thus prevent infection of our sewers? It is almost certain that typhoid fever could be stamped out by such disinfection, as certainly as small-pox is by vaccination. The scientific demonstration of this fact has now become sufficiently positive to warrant legislative action which would render the disinfection of typhoid excreta compulsory.

IN the *Journal of Dermatology* Dr. Luff describes some experiments made with a view of ascertaining the absorption of drugs from ointments made with vaseline, lard and lanoline as bases. The ointments were placed in sheep's bladders and suspended in distilled water, kept at a temperature of 98° F. The result showed that exosmosis of potassium iodide began most quickly from the vaseline, and not at all from lanoline. The same result ensued with carbolic acid. The wholly unwarranted conclusion is drawn that when absorption is desired, ointments should be made up with vaseline.

This is opposed to the results obtained by a series of trials at the Medico-Chirurgical Hospital. Ointments of atropine were prepared with lanoline, oleated lard, pure lard, vaseline and mollin. These were rubbed upon the skin of patients selected with a view to uniformity as to age, quantity of ointment used, etc. The trial showed that the lanoline ointment was most quickly followed by the symptoms of atropine—the dry throat and dilated pupil. Next came the oleated lard, while vaseline and mollin came last.

THE "KREUTZER SONATA" AND RUSSIAN MORALITY.

A GOOD deal of the disgust excited by Tolstoi's "Kreutzer Sonata" would, no doubt, have been saved were the readers familiar with the state of affairs in Russia. It is a fair inference that the author could not have written such a book unless the conditions in which he lived were very different from anything to be found in America. A writer in the *Fortnightly Review*[1] gives a glimpse of Russian life which goes far towards explaining the *raison d'etre* of Tolstoi's book. We are forcibly reminded that the Slav is as yet an undeveloped member of the Aryan family; and the degree of truth in this statement may be estimated by tracing back the history of any sister race until the same condition is found. Indeed, the limits of history will be reached, in some cases, before such a degree of brutish sensuality is found to prevail. It has been said that in the middle ages a condition of universal priapism existed; but we have even here the evidences of a contrary sentiment prevailing, in the rise of chivalry, which carried the idea of personal purity to a height rarely equaled in modern times. The fierce viking shut out women altogether from his cities. The Syro-Greek, in the groves of Antioch, invested his sensuality with a poetic grace that still survives in history. Chastity characterized the German on his first appearance upon the world's stage. The debauchery of the Roman Empire was unparalleled; but what magnificent achievements of that race preceded and led up to it! The race that built up the most stupendous political fabric the world has ever seen was as terrible in its excesses as in its battles. Celtic immorality is a modern development; and among the Gaelic population of Scotland, Ireland and Wales, chastity is the rule, with rare exceptions. But to-day, in Russia, Pachmann says that "the district courts do not look upon adultery as a serious violation of conjugal rights." Lanin speaks of the "abyss that separates Russian notions of morality and decency from those that prevail in the West." A parish priest, writing in *Graschdanin*, says: "All their social relations are permeated with coarse, cruel, brutal egoism." So that Tolstoi's book, necessarily a sharpened dart, hurled with full strength, may serve to pierce the tough Russian cuticle and arouse the sensation of conscious guilt.

RAILWAY SURGERY.

THE relations of the railway surgeon to the traveling public are considered in a paper presented to the Association of Railway Surgeons by A. W. Ridenour, of Massillon, Ohio. In case of injury by accident, the author states that patients may be transported by rail, for considerable distances, as soon as the preliminary dressings have been made. The motion of the car acts as a stimulant to patients in shock; though the time of transportation should not exceed two hours, as fatigue is then manifested. He earnestly warns against the practice of unlimited stimulation. A little whiskey may be beneficial if carefully administered. Besides this, hot water or beef tea, externally or internally, will do more good.

All trainmen should receive instruction in "first aid to the injured." Amputations should receive the sanction of the patient and his friends. In case of injury to any part of the nervous system, the physician should be discreet in expressing any opinion. The results of such injury may be far-reaching, and slow to develop. Real injury will inevitably be followed by demonstrable tissue alterations. These cases should be watched for one or two years. He ridicules the idea of bacteria clinging to the furniture

[1] Literary Digest, October 18, 1890.

of a sleeping-car. All bedding is thoroughly cleansed and disinfected at the end of each trip. Some improvement could be made in the closets, which are generally open and expose the persons using them to drafts. In case of menstruating women, in winter, this might cause trouble; but by a simple improvement this could be obviated.

Without great care, filthy and undesirable persons may avail themselves of the privileges of the sleeping-car; but the officers generally prevent this. If not, thorough cleaning is universally enforced at the earliest possible moment. But one bed should be made up in a section, if possible; the ventilation should be above and below; the temperature should be maintained at 65° F., instead of 98°, as is the porter's preference; and the bed should be arranged with the feet towards the engine.

Dr. Ridenour's paper shows that he has given his subject much study; and the suggestions made could be adopted with benefit. There is no doubt that both health and comfort would be much enhanced were the upper berth to be done away with; but a serious objection would be found in the increased cost, as the car would then accommodate but half the present number. This, however, would be more apparent than real, as a sleeper is rarely more than half full; the swaying of the top berth being too much for any but a seasoned traveler. Sleeping-car officials, however, insist on making up the top berths, even when not occupied, unless the occupant of the lower berth pays for the section.

Letters to the Editor.

CARDIAC OSSIFICATION.

I WAS recently called to see the body of a man who had been found dead. From the appearance of the body I concluded that he had been dead about an hour, or possibly two hours. Being ordered by Coroner Franklin to make an autopsy I proceeded to do so, and found the contents of the abdominal cavity normal. On opening the chest I found numerous old pleuritic adhesions, and the heart was very much enlarged, of a yellowish color, and full of fluid blood. On removing the heart, and laying open its cavities, I found the left auricle encircled on the inner surface by a ring of ossification, three-fourths of an inch wide, and extending almost the entire distance around it. How the heart continued to function so long is a mystery. The cause of the cardiac hypertrophy was evidently aortic stenosis.

GEORGE EVANS READING, M.D.

WOODBURY, N. J.

Book Notices.

ESSENTIALS OF PRACTICE OF MEDICINE. By HENRY MORRIS, M.D.; with an Appendix, on the Examination of Urine, by LAWRENCE WOLFF, M.D. Philadelphia: W. B. Saunders, 913 Walnut street, 1890. Cloth, pp. 368 and 66. Price, $2.00.

A quiz compend, like all the rest on practice, about ten years behind the times. If a fair specimen is to be found in the chapter on muscular rheumatism, the teaching is neither sufficient nor correct.

SAUNDERS' POCKET MEDICAL LEXICON. By JOHN M. KEATING, M.D., and HENRY HAMILTON. Philadelphia: W. B. Saunders, 913 Walnut street, 1890. Cloth, pp. 280.

A really good, little, vest pocket lexicon, in much larger type than usual; but the paucity of words necessitated is largely made up by the good judgment shown in their selection.

Pamphlets.

A Criticism of Willett's Operation for Talipes Calcaneus. By A. B. Judson, M.D. Reprinted from the *New York Medical Journal* for August 23, 1890.

Clinical Observations on Salpingitis. By Thomas A. Ashby, M.D., of Baltimore. Reprinted from the *Maryland Medical Journal*.

I. The Prevention of the Short Leg of Hip Disease. II. The After-Treatment of Hip Disease. By A. B. Judson, M.D., New York. Reprinted from the Transactions of the American Orthopedic Association, September, 1889.

The Medical Digest.

NOMA FOLLOWING TYPHOID.—In the *Lehigh Valley Medical Magazine* Keim describes a fatal case of gangrene of the cheek following typhoid fever, in a boy aged nine years. This rare affection has been most frequently noticed as a sequel of measles.

FOR CIRRHOSIS OF LIVER.—

℞.—Hydrargyri bichlorid	gr. j.
Ammonii muriat	ʒij.
Syr. aurantii	℥j.
Aquæ	q. s. ad ʒiij.

M.—S. ʒj thrice daily.

—Satterthwaite, *Southern Med. Record.*

TRAUMATIC TETANUS.—Tancil (*Jour. Am. Med. Asso.*) reports the case of a boy with tetanus, following a wound of the foot. Recovery ensued under the use of quinine, bromidia and gelsemium. The physicians in attendance credited the cure largely to the bromidia, which was given in doses of a teaspoonful every one, two or more hours, as needed to control the paroxysms.

FOR DIABETIC GINGIVITIS.—

℞.—Acid. borici	25 grammes.
Acid. carbolici	1 gramme.
Thymolis	0.25 "
Aquæ	1 liter.
Misce, et adde :	
Sp. anisi	10 grammes.
Sp. menthæ pip.	10 gtt.
Alcohol	100 grammes.
Cocci cacti	q. s. ad colorando.

S. To be diluted with an equal bulk of water and used to rinse the mouth after meals.

—Dujardin-Beaumetz, *Therap. Gaz.*

ITCHING.—Bronson (*Med. Record*) thus summarizes a paper on the sensation of itching:

1. That there is a sense of contact independent of the sense of pselaphesia.

2. That this sense of contact is the sense disturbed in pruritus.

3. That it concerns primarily, simple cutaneous nerves or nerve-endings, situated superficially and probably in the epidermis.

4. That the disturbance in pruritus is of the nature of a dysæsthesia due to accumulated or obstructed nerve excitation with imperfect conduction of the generated force into correlated forms of nervous energy.

5. That scratching relieves itching by directing the excitation into freer channels of sensation, sometimes, especially when severe, substituting for the pruritus either painful or voluptuous sensations.

6. That the voluptuous sensations that may attend pruritus are a manifestation of a generalized aphrodisiac sense, representing a phase of common sensation that has its source in the sense of contact.

OVARIOTOMY FOR THE CURE OF INSANITY.—Pfaff (*Weekly Medical Review*) describes a case in which he removed the appendages, which were diseased, from a woman who was at the time in acute mania, caused, it was thought, by the ovarian disease. The results are given as follows: "Since this time, a period of four months, she has continued to discharge the ordinary duties of housewife, without any symptoms, so far as can be ascertained, of her former mental derangement; and I have just this week seen her family physician, who assures me that his patient has been entirely cured by the operation, and that her mental faculties are as bright, apparently, as they ever were."

FOR DIABETES.—

℞.—Fel. bovis inspis.
Quininæ sulph. .....āā gr. xl.
Ext. nucis vomicæ ..... gr. vj.
M.—et in capsul. No. xx divide.
S. One before each meal.

℞.—Ext. hyoscyami fl. ..... ℥iij.
Ext. damianæ fl..... ℥vj.
Potassi bicarb. ..... gr. xl.
Mucilaginis..... ℥ss.
Aquæ..... ℥iij.
M.—S. ℥j every three hours.

Restriction of the quantity of food is more essential than of its quality.

—Porter, *Southern Med. Record.*

ADMINISTRATION OF CHLORALAMID.—Much depends upon the proper administration of the new hypnotic, chloralamid, to obtain the full effect and satisfactory and beneficial results. The dose is from 15 to 60 grains, with an average dose of 30 grains. Chloralamid is soluble in about 20 parts of cold water, and in 1½ parts of alcohol.

An additional caution is necessary: *Never dissolve or dispense chloralamid in hot water or warm solutions*, as the heated preparation decomposes.

The best modes of administration are:

1. In a tablespoonful of whiskey or brandy.
2. In properly proportioned solutions with wine, spirits, or spirituous compounds.
3. In a small cup of cold water or cold tea.
4. In powder form, in wafers or cachets washed down with cold water.

TOXIC EFFECT OF CALOMEL IN THE PRESENCE OF CHLORIDES OF THE ALKALIES.—Adam (*Nouveaux Remèdes*) confirms the statements of such authorities as Moll, Hervé, Guibourt, Larocque, Jolly, and others to the effect that within the body calomel does not, to any appreciable extent, go into solution as sublimate. M. Mialhe's assertion that it does, and that the agent in effecting this is sodium chloride, is still current doctrine. Dr. Adam's experiments were made both in the absence and presence of organic matter; in either case only traces of mercury went into solution provided that there was not free access of air. In the presence of air a considerable quantity of mercury was dissolved. The author claims that within the body the access of air is practically *nil*. Besides experiments outside the body, others were made on the living animal which confirmed the above negative statement.—*Brit. Med. Journ.*

SPINAL CONCUSSION.—Dr. Watson intelligently discusses many of the problems which this series of experiments presents. We deem his conclusions of sufficient importance to present them in outline as follows:

1. Concussive accidents never produce pathological changes in the cord unless great force has been applied to the spine. These cases are generally complicated with vertebral fracture or dislocation, rupture or stretching of vertebral ligaments, or distant injuries so severe as to quickly prove fatal.
2. The symptoms develop immediately, and are rarely intensified by morbid changes in the cord; exceptions, fractures, dislocations, and slowly developing hemorrhage causing pressure on the cord.
3. It is very difficult to demonstrate stretching of vertebral ligaments on living subjects. The lesion is frequently overlooked on autopsy.
4. Injuries of the cord, with visceral injuries in addition, develop symptoms dependent on the existing complication. The termination of the case rests on the character of the traumatism.
5. Concussive force, though remotely applied, frequently results in the production of severe and even fatal traumatisms in various organs within the three trunk cavities.—*Med. Record.*

BACILLARY PARTNERSHIPS.—In the course of some experimental investigations on the relationship of micro-organisms with diseased conditions, Drs. Cornil and Babès have discovered that a certain affinity exists between particular species. In other words, the development of special varieties may be facilitated, or the reverse, by the presence or pre-existence of certain other varieties. In this way the occasional complication of an existing infectious disease by a second is not the result of mere chance, but is governed by some still undefined conditions of environment. In other instances this association of two or more species of micro-organisms is necessary to the evolution of the malady. This association is the rule in the infectious diseases of human beings, and it is often the secondary infection that determines the fatal issue. This partnership arrangement may take place between microbes belonging to more or less nearly related species, as in the case with the organisms of pneumonia and typhoid fever. Or there may be streptococci and bacilli together, as in diphtheria, or several varieties of streptococci, as in the infection of wounds. In fact, there is a large selection of these associations, some invariable, others frequent and a third category, in which the secondary infection is accidental. These facts may possibly throw some light on the rhythm and sequence of the symptoms in the infectious diseases.—*Med. Press.*

CHLOROFORM.—I will conclude by giving a series of "practical conclusions," derived from studies of the subject by experiment upon animals, which do agree with observations upon the human subject. And I consider it a matter of no slight congratulation that they were presented at the late International Congress by one of our countrymen, Professor H. C. Wood, in his address on anæsthesia. They have been lately published in nearly all the journals, but they will bear repeating. The closest examination fails to detect any flaw in them, or to find any point which is not supported and which cannot be substantiated by clinical records:

1. The use of any anæsthetic is attended with an appreciable risk, and no care will prevent an occasional loss of life.
2. Chloroform acts much more promptly and much more powerfully than ether, both upon the respiratory centres and upon the heart.
3. The action of chloroform is much more persistent and permanent than that of ether.

4. Chloroform is capable of causing death either by primarily arresting the respiration, or by primarily stopping the heart, but commonly (sometimes) both respiratory and cardiac functions are abolished at or about the same time.

5. Ether usually acts very much more powerfully upon the respiration than upon the circulation, but occasionally, and especially when the heart is feeble, ether is capable of acting as a cardiac paralyzant, and may produce death at a time when the respirations are fully maintained.

6. Chloroform kills, as near as can be made out, proportionately four or five times as frequently as does ether.—Reeve, *Medical News.*

Examination of the Sputum for Tubercle Bacilli.—Kühne, of Wiesbaden (*Centralbl. fur Bakt. und Parasitenk.*), after referring to the fallacies and difficulties with which the search for tubercle bacilli in sputum from phthisical patients is surrounded, describes a new method of staining the bacilli. When it is difficult to spread out the sputum on a cover glass he uses a concentrated solution of borax, to which at least an equal quantity of sputum is added. The mixture is shaken up in a suitable glass or is worked up in a mortar, after which it is easily spread in a thin layer over the cover glass. Nummular sputa from cavities may be broken down by a watery solution of carbonate of ammonia; this has the advantage that it is partially volatilized as soon as the cover glass is heated, and what remains is broken up by the action of the acid. An equable layer on the cover glass being obtained, the albumen is coagulated by careful heating over a flame, after which the specimen is stained in Ziehl's fuchsin solution for five minutes, the color is completely removed with a 30 per cent., solution of nitric or sulphuric acid, and the specimens are washed in water and dried. In order to obtain a contrast stain, two or three drops of a concentrated solution of picric acid in aniline oil may be added to a watch glass containing pure aniline oil; a drop of this, placed on the slide before the cover glass is lowered into position, gives a sufficient yellow contrast stain to cause the red tubercle bacilli to stand out very prominently. They may be examined with a magnifying power of × 60 to × 100, and where they are in great number, as is the rule in "cavernous" sputa, they appear under still weaker magnifying power as particles of red dust on a yellow ground. To make a permanent preparation, Kühne recommends that the aniline oil be driven off by means of his hand blower, and that the specimen be mounted in Canada balsam. By this method the tubercle bacilli only are stained.

—*British Med. Journal.*

Pancreatic Digestion in Marasmus.—Gillet has examined the activity of the pancreas removed during cold weather, shortly after death, from seven children. His results, as reported in the *Annals de la Policlinique de Paris*, are worthy of note, though his cases are too few to allow any conclusion to be drawn.

1 and 2. Two of the children were twenty-four days old when they died of "congenital debility;" in both the action of the pancreatic extract on starch was very slight; and in the one case in which the emulsifying and proteolytic action was tested, both were very imperfect.

3. In a child, aged fifty-three days, who died of athrepsia and bilious diarrhœa, starch and casein were very slowly acted on, but oil was emulsified.

4. In a child, aged three months, who died of lienteric diarrhœa, there was no action on starch, casein, or oil.

5. In a child, aged eight months and a half, whose death was due to congenital debility, starch was reduced in ten minutes.

6. In a boy, aged twenty-two months and a half, who died of pulmonary tuberculosis, albumen was rapidly dissolved, but the action on starch was delayed and on oil was imperfect.

7. In a boy, aged three years and a half, who died of measles and diphtheria, starch was reduced in twenty minutes.

M. Gillet, as is right, refrains from stating any definite conclusions, but considers that these results tend to support previous observations as to the inactivity of the pancreas during the first months of life, and to show that in lienteric, and perhaps also in bilious diarrhœa, it loses its power of acting on starch and albumen, while this power is retained in such severe diseases as "tuberculosis, measles, and diphtheria." His experiments were carefully performed, and precautions were taken to render the fluids aseptic.

—*Brit. Med. Jour.*

Intestinal Obstruction.—Jessett (*Med. Press and Circular*) thus sums up a valuable article:

1. Obstruction of the intestines the result of constricting bands or volvulus are always met with either in the small intestine or the sigmoid flexure.

2. The most common cause of bands are old peritonitis, local or general, Meckel's or other diverticula may be the cause of constriction of the bowel by snaring or twisting.

3. The predisposing cause of volvulus consists in elongation of certain segments of the intestine, abnormal length of the mesentery, adhesions, or unequal peristaltic action.

4. The higher in the intestine the obstruction the more severe usually are the symptoms.

5. All cases of obstruction should be treated by early abdominal section, and if possible reduction of the constricted portion of the intestine by dividing of constricting bands or untwisting a volvulus, that is if the gentle insufflation of hydrogen gas fails to effect reduction.

6. In all cases where the intestine is very distended, it should be freely incised and its contents evacuated.

7. In all cases in which the constriction is irreducible lateral anastomosis by approximation discs should be practised so as to exclude permanently the seat of obstruction from active fæcal circulation.

8. In cases where gangrene has taken place in the loop of constricted intestine, it should be excised, and the portion of intestine above and below the seat of constriction should be united by lateral anastomoses by approximative plates; the divided ends being invaginated into themselves.

9. All bands and diverticula should be removed when practicable at the time of the operation; in the case of volvulus, if the mesentery is abnormally long it should be shortened.

10. That enterostomy, or the formation of an artificial anus, should never be performed unless it is found to be absolutely impracticable to re-establish the continuity of the intestinal canal by dividing the constricting bands by enterorrhaphy or by means of lateral apposition as described.

Celluloid has proved a failure as a material for artificial eyes.

Medical News and Miscellany.

SCARLET fever is on the increase in London.

ALEPPO reports fifty deaths daily from cholera.

DIPHTHERIA is prevalent in Chester county, Pa.

DR. MCGONIGAL, of New York, gets twelve years' sentence.

TYPHOID fever has broken out at Oley, Berks county, Pa.

DR. CLINTON COOK, of Chicago, has mysteriously disappeared.

THE Dunning Insane Asylum, Illinois, is to be lighted by electricity.

SOME unknown disease is said to be killing the oysters in the Chesapeake.

LASSAR, the Secretary of the Tenth Congress, is said to have become insane.

DR. PAVY has built and furnished a gymnasium for the use of the students of Guy's Hospital.

DR. PALMER M. KERN, formerly of Bath, more recently of Denver, Col., has settled in Easton.

THE Miners' Hospital at Hazleton has not passed out of the hands of the Building Committee as yet.

DR. HENRY ECROYD, of Philadelphia, is to be married to Miss Ashbridge, October 30, at Downingtown.

THE opposition to the extension of the Insane Department, Philadelphia Hospital, appears to have evaporated.

THE new Hahnemann hospital in Philadelphia was dedicated October 21. It has accommodations for 125 patients.

THE Norristown Insane Asylum has now in its wards over 1,800 patients, whereas it is designed to accommodate 1,300.

AN English justice has gotten into trouble by sentencing a man to five days' imprisonment for meningitis, of which he died in prison.

THE Trustees of Jefferson Medical College have requested Professor Bartholow to take a six months' vacation for the benefit of his health.

DR. J. W. PARKER, of Denver, shot Dr. Dameron, a dentist, on October 16, and slightly injured him. Should have loaded his gun with pills.

DR. F. H. WINES, of the Illinois State Board of Charities, is in Chicago, and will investigate the insane asylum and infirmary, which badly need it.

A NEW eclectic college has been organized at Indianapolis by members of that school who do not harmonize with the management of the old college.

DR. S. SOLIS COHEN has returned to Philadelphia from Dartmouth Medical College, where he has been giving a course of lectures upon therapeutics.

A NIGHT SCHOOL, which is free except for the charges, opened October 21 at the Central Christian Church, Twelfth street above Wallace, Philadelphia.

DR. BROWN-SÉQUARD has left the consideration of the elixir question long enough to recur to his query: "Does man have two brains or one?" The scientist resolutely ignores a certain order of individuals who belong to neither of these two classes, but are regrettably common in certain sections of the country.—*Chicago News.*

TENNESSEE has now in force an Examining Board, modeled on that of New York, containing regulars, homœopathists, and eclectics, Hydropaths, vitapaths, physio-medicals, and faith curists are not represented.

THAT wily man, Wile, is about to perpetrate on a long-suffering public a new medical journal, denominated *The Prescription*, and composed entirely of favorite formulas.

IT is said that the Marine Hospital Department contemplates having medical men attached to all United States Consulates, who will examine all persons desiring to emigrate to America, and ascertain their physical fitness.

IN San Francisco, Dr. Connelly has caused a young lady's arrest for "disturbing the peace." She lives on the floor above his office, and the ground of her offending is that, while she is an inveterate piano player, the physician denies that she is a musician.

CITY ELECTRICIAN BARRETT, of Chicago, has invented a means of working a draw-bridge by electricity. The main difficulty in the practical working of his plan is that as yet dynamos are not allowed to vote, while the owskis and offs can be depended upon in the primaries.

A REMARKABLE feat is recorded in the *Chicago Daily News* in the way of safe-opening. The burglar cut one of his nails down until the sensitive pulp was exposed. This he pressed against the knob, and turned until he could feel the tumblers drop into their places. After an hour's experimenting the safe doors swung open, and the ingenious rascal was nabbed by waiting detectives.

A DEATH occurred at Plymouth, England, during the administration of methylene. The lungs were found much congested; ventricles dilated; cardiac tissues soft and pale; kidneys large and congested; liver contracted. Methylene is administered in the Plymouth hospital about four hundred times annually, and it has been five years since a death under anæsthesia occurred.

AT the Philadelphia County Medical Society, on Wednesday, October 22, 1890, by invitation of the Board of Directors, Dr. J. B. Mattison, of Brooklyn, N. Y., read a paper entitled The Penal Status of Opium Habitués. Dr. John Aulde exhibited instruments and appliances for the administration of oxygen; Dr. Wm. Williams exhibited apparatus for sterilizing instrument and dressings.

ORGANIZED CHARITY.—The regular montly meeting of the Superintendents of the Society for Organizing Charity was held October 20, at 1705 Chestnut street, Dr. James W. Walk presiding. In the non-resident department sixty-four cases were disposed of; forty of these were sent to wayfarers lodges; eighteen did not report at lodges; six declined assistance offered; seven were referred to the St. George's Society, and two were granted transportation.

"LIQUID CRYSTALS."—A very remarkable paper has appeared in a recent number of Wiedemann's *Annalen*, on the subject of "Liquid Crystals." An industrious German chemist has, it appears, discovered some most curious organic liquids, drops of which, when examined in the microscope by polarized light, show definite axes of elasticity, just like crystals. That a liquid should possess an internal structure of this kind is one of the most remarkable of recent discoveries in the domain of molecular physics.—*Electrical Review.*

THE Governor of Sierra Leone is said to have reported that a number of American missionaries had died of tropical fever because, out of belief in the faith cure, they refused to avail themselves of medical treatment. The Governor further declared that "the climate of that country is not suited to those who trust to faith-healing and ignore the means placed at their disposal by Providence for the relief of suffering humanity."

The report is probably untrue; but, if verified, it should be made a serious question by those whose funds support the foreign missions, whether any good is to be expected from sending abroad as missionaries men who are devoid of common sense.

BLUE-GRASS ENDURANCE.—Professor N. Shaler, in his ethnographic researches, sought the record of a body of troops whose ancestors had been for many generations upon American soil, and he found it in the First Brigade of Kentucky troops (Confederate). In *Scribner's* for November he says: "On May 7, 1864, this brigade, then in the army of General Joseph Johnston, marched out of Dalton 1,140 strong, at the beginning of the great retreat upon Atlanta before the army of Sherman. In the subsequent hundred days, or until September 1, the brigade was almost continuously in action or on the march. In this period the men of the command received 1,860 death or hospital wounds, the dead counted as wounds, and but one wound being counted for each visitation of the hospital. At the end of this time there were less than 50 men who had not been wounded during the hundred days. There were 240 men left for duty, and less than ten men deserted. A search into the history of war-like exploits has failed to show me any endurance of the worst trials of war surpassing this."

INTERMENTS in Philadelphia, from October 11–18, 1890:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess	2	2	Inflammation bronchi	5	5
Alcoholism	1		" bladder	1	
Anæmia	2		" kidneys	3	
Apoplexy	8	1	" heart	3	
Bright's disease	11		" lungs	8	13
Cancer of uterus	9		" peritoneum	1	1
Casualties	5	2	" pleura	1	
Congestion of the brain		2	" s. & bowels	2	2
" " lungs		3	Inanition		6
Cholera infantum		5	Marasmus		17
Cirrhosis of the liver	4		Neuralgia of the heart	2	
Consumption of the lungs	42	7	Old age	7	
Convulsions		18	Paralysis	9	
Croup		10	Poisoning, cor. sublimate	1	
Cyanosis		3	Pyemia	1	
Drowned		1	Rheumatism	1	1
Debility		6	Septicæmia	2	
Diarrhœa	1	3	Sore mouth		1
Diphtheria		12	Softening of the brain	2	
Disease of the brain	1		Suffocation		1
" " heart	18	2	Suicide, hanging	1	
" " kidneys		1	Syphilis		1
Dysentery		3	Tetanus		1
Dropsy	1	2	Tumor, abdominal	1	
Fever, malarial	1		Ulceration of the bowels	1	
" remittent		1	" " stomach	1	
" scarlet		4	Uræmia	2	
" typhoid	6	3	Whooping-cough		2
Hemorrhage from uterus	1				
Homicide	2		Total	172	149
Inflammation brain	2	7			

SOME time ago, when the *Index* gave the circulation of a number of prominent medical journals, the weekly TIMES AND REGISTER was quoted from Geo. P. Rowell & Co.'s newspaper directory as having more than 2,000 subscribers. The editor of the journal feels that an injustice has been done; and inasmuch as, at the time of consolidation of the periodicals constituting the now TIMES AND REGISTER the *Polyclinic* had about 2,000, the *Medical Times* 1,500, the *Medical Register* 2,500, and the *American Medical Digest* 3,000, the circulation of the present publication must be somewhere in the neighborhood of 9,000, instead of the 2,000 given—for which mistake the *Index* craves pardon, although it seems as if the error lies at the door of the publishers of the TIMES AND REGISTER. If a certified statement of the actual circulation of that periodical had been sent to Messrs. Geo. P. Rowell & Co., in response to the letter asking it, there is no doubt but proper circulation rating would have been given in the American Newspaper Directory. The inference that the publishers of the Directory would not give a satisfactory rating because the REGISTER failed to take advertising space is not a just one.—*Med. Index.*

[This is quite probably correct. The reflection on Messrs. Rowell & Co. was made hastily, and should not have been printed.]

SINCE the opening of the New York Pasteur Institute, on February 18, 1890, up to October 15, 610 persons, bitten by dogs or cats, came to be treated. These patients may be divided in two categories:

1. For 480 of these persons it was demonstrated that the animals which attacked them were not mad. Consequently the patients were sent back after having had their wounds attended, during the proper length of time, when it was necessary. *Four hundred patients of this series were consulted or treated gratis.*

2. In 130 cases the antihydrophobic treatment was applied, hydrophobia having been demonstrated by veterinary examination of the animals which inflicted bites, or by the inoculation in the laboratory, and in many cases by the death of some other persons or animals bitten by the same dogs. *All these persons are, to-day, enjoying good health. In 80 cases the patients received the treatment free of charge.*

The persons treated were:

64	from New York.	3	from Pennsylvania.	1	from Ohio.
12	" New Jersey.	2	" New Hampshire.	1	" Arizona.
12	" Massachusetts.	2	" Georgia.	1	" Iowa.
9	" Illinois.	2	" Texas.	1	" Nebraska.
8	" Connecticut.	1	" Maryland.	1	" Arkansas.
3	" Missouri.	1	" Maine.	1	" Louisiana.
3	" North Carolina.	1	" Kentucky.	1	" Ontario, (Can.)

THE Easton Hospital has been incorporated, a Board of Trustees and of Lady Managers elected. They have purchased a property on Wolf street, between Sixth and Seventh streets, which is now in the hands of the carpenters making the necessary changes, and will soon be ready for patients. The following staff has been appointed: Consulting Physicians, Drs. Traill Green, J. S. Hunt, and Isaac Ott; Attending Physicians, Drs. Charles Collmar, E. W. Evans, and H. D. Michler.

—*Lehigh Valley Med. Magazine.*

CHARITIES IN INDIANA.—The most interesting paper read before the State conference of charities was by Alexander Johnson, secretary of the State Board of Charities.

"We have in Indiana," said he, "besides county poor asylums, forty-five institutions of various kinds for the care and training of dependent children. The total number of children in these institutions is 2,723, and of these 1,518 are boys and 1,205 are girls, and of the total about 1,900 are receiving support from taxation. The sick, deaf and dumb, crippled, and infants under two years of age are not included in this summary. The total cost of these institutions in round numbers is about $175,000 annually. Comparing Indiana with other States we have one depen-

dent child in every 1,150 of population, New York one in every 300, Ohio one in every 837, California one in every 162, and Michigan one in every 7,000. The number seems to be increasing, for the homes are receiving children much more rapidly than they can find homes for them, although, with the exception of the Catholic orphanages, the placing-out plan is the one theoretically governing them.

"To this statement there are some marked exceptions. The Indianapolis Orphans' Asylum placed out last year a number exceeding fifty-five per cent. of its present population—not counting those returned to parents after temporary care. The Northern Indiana Orphans' Home placed out a number equal to two hundred per cent. of its present population."

—*Chicago Daily News.*

DR. WILLIAM A. EDWARDS, of San Diego, California, was married to Miss Frances L. Taft, on October 6. Dr. Edwards was one of a group of Philadelphia physicians, of a class far above the ordinary medical emigrant, driven to the West by premonitions of pulmonary disease. He, like Drs. Eskridge and the Haynes brothers, seems to have won the same high standing among his fellows of the Pacific slope that he enjoyed among the physicians of Philadelphia.

PATENTS, ETC., issued on medical subjects October 14, 1890:—

Catamenial-sack	G. Fuller	Gloversville, N. Y.
Dental tool	F. T. Van Woert	Brooklyn, N. Y.
Ear-trumpet	J. Boyd	St. Paul, Minn.
Insecticide	Giles & Brown	National City, Cal.
Obtaining meat-extracts	J. Van Ruymbeke	Chicago, Ill.
Optical measuring, nose-conforming, and recording instrument	D. V. Brown	Philadelphia, Pa.
Stethoscope	B. S. Boydstone	Clunette, Ind.
Truss	Miller & Bennett	Denver, Col.

TRADE-MARKS.

Ointment. (The word "Sebolin")	J. Adler	New York, N. Y.
Throat and Lung balsam. (The representation of an annular band, with its transverse scroll having the words "Bullock's Throat and Lung Balsam" printed on the annulus and scroll.)	M. L. Bullock	Passaic, N. J.
Remedy for catarrh, etc. (The word "Dodds")	Foster, Milburn & Co.	Buffalo, N. Y.
Medicine for indigestion, liver complaint, and analogous diseases. (An equilateral triangle formed by the proper names "W. E. Fogg, E. H. Fogg, Geo. A. Fogg")	W. E. & E. H. Fogg & Co.	West Milan, N. H.
Carbonated mineral waters and ginger. (The words "Ginger Champagne")	The Manitou Mineral Water Co.	Manitou Springs, Col.
Disinfectant and insect destroyer. (The compound letter "KB")	Kern Bros.	Brooklyn, N. Y.
Toilet-Deodorant, (The word "Footine")	B. V. Ludlam & Co.	Swanton, O.
Remedy for coughs and colds. (The words "Crown Cough Cure," and the representation of an imperial crown.)	E. Lawall	Easton, Pa.
Cough and kidney cure. (The words "Reid's German")	Sylvan Remedy Co.	Peoria, Ill.
Remedy for rheumatism, gout and neuralgia. (The letter "S," with letters "Dr." in upper and letter "E" in the lower part of same)	E. Schnizler	Philadelphia, Pa.

LABELS.

"Cod Liver Oil with the Hypophosphites of Lime and Soda."	A. C. McBride	Charleston, S. C.
"Wm. J. Sliter's Celebrated Cancer Cure."	Wm. J. Sliter	Harpersville, N. Y.
"Paul Leuschner's Pure Norwegian Cod Liver Oil."	P. Leuschner	Detroit, Mich.
"Dr. Pearson's German Lung Tonic."	J. D. Pearson	Sheridan, Ind.

CHARLES J. GOOCH, *Patent Attorney.*
LOCK BOX 76, WASHINGTON, D. C.

TO CONTRIBUTORS AND CORRSEPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from October 3, 1890, to October 13, 1890.

BYRNE, CHARLES C., Lieutenant-Colonel and Surgeon, is relieved from duty as Attending Surgeon at the Soldiers' Home, near this city, and will report in person to the commanding officer, Fort Sam Houston, Texas, for duty at that station. Par. 8, S. O. 232, A. G. O., Washington, D. C., October 3, 1890.

By direction of the Secretary of War, Captain James A. Finley, Assistant-Surgeon, is relieved from duty at Fort Totten, N. Dak., and will report in person to the commanding officer, Jefferson Barracks, Mo., for duty at that station, relieving Captain William D. Crosby, Assistant-Surgeon. Captain Crosby, on being relieved by Captain Finley, will report in person to the commanding officer, Fort Pembina, N. Dak., for duty at that station. Par. 8, S. O. 232, A. G. O., Washington, D. C., October 3, 1890.

Leave of absence for one month is granted Lieutenant-Colonel Joseph C. Bailey, Assistant Medical Purveyor, Medical Director of the Department. S. O. 86, par. 3, Department of Texas, October 3, 1890.

By direction of the Secretary of War, the leave of absence granted First Lieutenant Leonard Wood, Assistant-Surgeon, in Special Orders No. 74, August 30, 1890, Department of California, is extended one month. S. O. 232, par. 7, A. G. O., Washington, D. C., October 3, 1890.

By direction of the Secretary of War, Major Henry M. Cronkhite, Surgeon, is relieved from duty at Fort Lewis, Colo., and will report in person to the commanding officer, Fort Trumbull, Conn., for duty at that station, relieving Captain Robert J. Gibson, Assistant-Surgeon. Captain Gibson, on being relieved from duty by Major Cronkhite, will report in person to the commanding officer, Fort Sam Houston, Texas, for duty at that station. Par 8, S. O. 232, A. G. O., Washington, D. C., October 3, 1890.

By direction of the Secretary of War, Major William H. Gardner, Surgeon, is relieved from duty at Washington Barracks, D. C., to take effect on the arrival of Major Joseph K. Corson, Surgeon, and will report in person to the commanding officer, Angel Island, Cal., for duty at that station. Par. 8, S. O. 232, A. G. O., Washington, D. C., October 3, 1890.

By direction of the Secretary of War, Captain William E. Borden, Assistant-Surgeon, is relieved from duty at Fort Sam Houston, Texas, upon the arrival of Lieutenant-Colonel C. C. Byrne, Surgeon, and will report in person to the commanding officer, Fort Davis, Texas, for duty at that station, relieving Captain Peter R. Egan, Assistant-Surgeon. Captain Egan, on being relieved by Captain Borden, will report in person to the commanding officer, Fort Warren, Mass., for duty at that station, relieving Captain George McCreery, Assistant-Surgeon. Captain McCreery, on being relieved by Captain Egan, will report in person to the commanding officer, Fort Clark, Tex., for duty at that station, relieving Captain Charles M. Gandy, Assistant-Surgeon. Captain Gandy, on being relieved by Captain McCreery, will report in person to the commanding officer, Fort Shaw, Mont., for duty at that station. Par. 8, S. O. 232, A. G. O., Washington, D. C., October 3, 1890.

By direction of the Secretary of War, Major Curtis E. Munn, Surgeon, is relieved from duty at Angel Island, Cal., and will report in person to the commanding officer, Fort Monroe, Va., for duty at that station, relieving Major John Brooke, Surgeon. Major Brooke, on being relieved by Major Munn, will report in person to the commanding officer, Fort Leavenworth, Kansas, for duty at that station, relieving Major Alfred A. Woodhull, Surgeon. Major Woodhull, on being relieved by Major Brooke, will report in person to the commanding officer, Fort Sherman, Idaho, for duty at that station. Par. 8, S. O. 232, A. G. O., Washington, D. C., October 3, 1890.

The Times and Register.

Vol. XXI, No. 18. NEW YORK AND PHILADELPHIA, NOVEMBER 1, 1890. Whole No. 634.

PAGE

CLINICAL LECTURE.

THE MODERN VIEW AS TO THE PATHOLOGY OF CANCER. SKIN-GRAFTING. By Ernest Laplace, M.D. - - - - - - - - - 397

ORIGINAL ARTICLES.

SEROUS CYSTS AND CYSTIC FORMATIONS; ABDOMINO PELVIC. By Thomas H. Manley, M.D., New York - - - - - - - - 399

ON THE NATURE OF THE COAGULATING PROCESS. By Samuel Wolfe, M.D., Philadelphia - - - - - - - - - - - - - - 408

SOCIETY NOTES.

PHILADELPHIA COUNTY MEDICAL SOCIETY, 409

A New Method of Delivering the Fœtal Head. *Shimwell* - - - - - - - - - 409

The Treatment of Hemorrhoids by Excision. *Penrose* - - - - - - - - - - 411

THE POLYCLINIC.

MEDICO-CHIRURGICAL COLLEGE: Chronic Ovaritis. *Godfrey* - - - - - - 413

EDITORIALS.

PRIORITY IN TUBERCULOSIS INVESTIGATIONS - - - - - - - - - - - - - - 414

THE RENAISSANCE IN THERAPEUTICS - - 414

PAGE

ANNOTATIONS.

Berberis Aquifolium. - - - - - - - - - 414

The Medico Chirurgical Hospital - - - - 415

The Catha Edulis - - - - - - - - - - 415

The Situation at Jefferson - - - - - - - 415

LETTERS TO THE EDITOR.

Trinity University of Bennington, Vt. - - 415

BOOK NOTICES.

Essentials of the Diseases of Children. *Powell* - - - - - - - - - - - - - 415

PAMPHLETS - - - - - - - - - - - 415

THE MEDICAL DIGEST.

For Acute Eczema and Irritable Conditions of the Skin. *Shoemaker* - - - - - - - 413

For Animal Parasites. *Shoemaker* - - - - 413

For Furuncular Affections. *Shoemaker* - - 413

For Painful Skin Diseases. *Shoemaker* - - 413

For Neuralgia. *Bidwell* - - - - - - - - 416

Caustic for Nævi, Tubercular Growths, etc. *Richardson* - - - - - - - - - - - 416

For Typhoid Fever. *Moore* - - - - - - - 416

Diuretic and Drastic. *Laramee* - - - - - 416

Chloralamid. *Steele* - - - - - - - - - 416

For Eczema and all Squamous and Vesicular Eruptions. *Startin* - - - - - - - 416

PAGE

Compound Bismuth Lotion. *Startin* - - - 416

Diuretic. *Laramee* - - - - - - - - - - 416

Ferruginous Pills. *Huchard* - - - - - - 416

Mixture for Fetid Exhalation from the Mouth. *Medical Press* - - - - - - - - 416

Ointment for Fissures and Eczema of the Nares. *Medical Press* - - - - - - - - 416

Ointment for Prurigo. *Medical Press* - - - 416

For Gastric Cancer. *Dujardin-Beaumetz* - 416

For Hay Fever - - - - - - - - - - - 416

Pilocarpine in Renal and Cardiac Odema. *Medical Press* - - - - - - - - - - - 416

Application of Mineral Acids in Necrosis. *Bull* - - - - - - - - - - - - - - 417

The Succinimide of Mercury in Syphilis. *Selenew* - - - - - - - - - - - - - 417

Anodyne Effects of Electric Light. *Stein* - 417

Successful Suture of Tendons Eleven Weeks After the Injury. *Gostling* - - - - - - 417

A New Operation for Stricture of the Rectum. *Thompson* - - - - - - - - - - 418

MEDICAL NEWS AND MISCELLANY, 418

ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - 420

NOTES AND ITEMS - - - - - - - - iv, xiv

Clinical Lecture.

THE MODERN VIEW AS TO THE PATHOLOGY OF CANCER. SKIN GRAFTING.[1]

BY ERNEST LAPLACE, M.D.,

Professor of Pathology in the Medico Chirurgical College, Visiting Surgeon at the Philadelphia Hospital, etc.

GENTLEMEN: Later in my hour I propose to operate upon two cases; the first, the skin-grafting, according to Thiersch's method, of two rather extensive ulcers of the leg; the other, the removal of a number of venereal warts from the penis of a young man who has been a sufferer from gonorrhœa. But before speaking of these cases I thought I would take this opportunity to address you upon a question of vital importance in surgical pathology, and endeavor to reduced to a nutshell, and to make tangible to you, the chief points in the modern view of the pathology of cancer; cancer, the thing of such dread to those afflicted with it, and likewise to us who are called upon to treat it; cancer, the bugbear of the medical student who must make a diagnosis between it and sarcoma.

The word cancer means simply crab, and on account of its eating and gnawing property it was given this name by the ancient pathologists. The later pathologists have discovered the true nature of cancer, which is nothing else than an hyperplasia, an exaggerated development of cells, a growth in a particular part. This growth may exist on the surface and bulge outward, or existing on the surface it may dip into the tissues; and according as the growth takes one or the other of these directions, so will the growth be benign or malignant.

The simplest of all growths is growth upon the surface, an epithelioma. No doubt you have all been out rowing and have had callous spots upon your hands following upon a blister. These are due to an irritation of the cells of the skin of the palm, which is followed by their proliferation and growth, and the production of a benign epithelial tumor upon the spot. On the other hand a man is a smoker; he smokes a pipe which presses always upon the same spot; but, mark you, the man comes from a family of cancerous ancestors. He has the cancerous soil in him, and only wants the chance to develop the cancer. Perhaps a slight scratch or abrasion exists upon his lip, and this is irritated by the pipe. A congestion, an hyperæmia follows, a cell proliferation occurs, and, then, as we have every reason to believe, a specific micro-organism is deposited upon the inflamed spot, and an epithelioma is developed with a growth inward, and an infiltration of cells into the tissues, whereas, in the first case, there was only an accumulation of cells.

The true epithelioma, if we wish to be scientific, is any growth of epithelium, and this would include the corn and the callous spot. But this is not the general acceptation of the term. In order to develop a cancer the cancerous diathesis must be present, which, although we do not know precisely what it is, we do know that it is some chemical change in the system which gives rise to the tendency to the formation and growth of cancerous products. The chemical decomposition thus produced gives rise to the products known as ptomaines. So much for the epithelioma, but this leaves out of consideration a whole class of cancerous affections. No matter where the growth exists the process is identical. So we now come to consider that class of growths that is characterized not by epithelial, but by fibrous tissue, the class including fibromas, sarcomas and scirrhus cancers.

Gentlemen, the processes of nature are blind; she acts as she is forced to act. When we have an amputation, and the large flaps are open, and a dreadful gash has been made, the surgeon sews up the wound and trusts to nature to heal it, and all the elements

[1] Delivered at the Philadelphia Hospital.

that are necessary to the growth of the most malignant of cancers enter into the kind healing of that wound. The wound is closed by the surgeon, but the knife in passing the tissues has produced an irritation, and a congestion results. A clot forms at the end of the several blood-vessels, thus stopping the hemorrhage. But the heart is working behind, and the blood still comes into the vessel, and here and there we can see the white blood corpuscles, which pass through the stomata in the dilated blood-vessels by a process of hour-glass contraction. This phenomenon, you know, is called "diapedesis," and these exuded corpuscles are called "leucocytes." These leucocytes are destined by nature to grow into fibrous tissue, which they do by elongating more and more until they take the shape of a fiber. When millions of these white blood corpuscles have exuded we say that the wound is covered with healthy granulations, which fill up the whole wound. When those on the surface are formed, the lower ones are about two weeks old, and have passed through successive stages from round cells to spindle cells, and finally to fibrous cells, and the wound is closed up by fibrous or true cicatricial tissue. The next step is a sealing of the wound with epithelium, and the process of healing is completed. Should these leucocytes be killed, they would manifest their death by undergoing the fatty change we call "pus."

You must retain these steps closely in mind if you wish to have the least notion as to the growth of cancers. All growths include only fibrous and epithelial tissues, arranged, however, in different ways. Now, as regards sarcomas. Just as epitheliomas are due to the development of epithelial cells, the fibroma is due to the development of fibrous cells, and the sarcoma is only a variety of fibroma. If the blood vessel which is cut is subjected to any irritation, congestion will occur, with diapedesis. This will finally result in the formation of fibrous tissue. Now, if you make a section through a sarcoma, you will observe a variety of cells. If you make the section through the youngest growing part, the cells will be found to be all round, and you would call it a "round-celled sarcoma." If through the older portions, the cells will be found to be all spindle shaped, and you would call it a "spindle-celled sarcoma." If the tumor has been of a very slow growth, you will find only fibrous cells, and you would call it a "fibroma." So a fibroma and a sarcoma are the same thing, only that the old sarcomata are more rapid in growth than the simple fibromata. All must pass through the same process of development.

Now for the true carcinoma, or, in other words, the development of a cancer inside of a gland. A true cancer may be either soft or encephaloid, or hard or scirrhus. When the endothelial cells of a gland are attacked by an irritant they proliferate and produce the soft growth called "encephaloid," because it resembles the brain in consistency, which the ancients called "encephalon." A scirrhus is nothing else than a combination of the encephaloid with a fibroma, where the fibers of the latter, possessing contractile power, secure the ascendency, and produce a hardness of the growth. Under the microscope we can see these fibers all around, and within them the true epithelioma packed in the meshes.

Now what about the mucoid degeneration and amyloid cancers? Gentlemen, what I have told you is all that nature will do; but in doing this, these cells frequently die, or are squeezed to death by the contracting fibers, and undergo degeneration into calcareous, mucoid, or amyloid material. A word as regards metastasis. To my mind, the very best proof of a malignant growth being due to a micro organism is this element of metastasis. If, in removing a cancer, all is not removed, there will be a redevelopment of the growth. One germ is all that is required to produce a new formation. The poison travels through the lymphatics to the neighboring glands and develop there a like growth. Finally, here is a suggestion which I hope will take away from you any stereotyped idea you may have as to when to pronounce a tumor malignant or benign. The callosity is a benign growth because the irritant which produces it is outside of the body and can be removed. The cancer is a malignant growth because the irritant is within the body, and we cannot always remove it entirely.

There is one more growth I wish to mention, and that is the lipoma, with its relation to malignant growths. A lipoma consists of fatty tissue, with here and there fibrous tissue. A lipoma, then, is nothing else but a genuine fibroma, in some of whose cells fat has been deposited, the oil pushing the nuclei to one side. Finally, why are fibromas not as malignant as genuine cancers? Because the fibrous cell has not the power of infiltration as has the epithelial cell. Here, now, is a man who had an epithelioma of the penis, and the organ was removed twelve months ago. He comes back now in this condition, with the growth in his groin. The point I wish to call your especial attention to is this: Were I to cut into this tumor and remove a portion of the hypertrophied gland, and send it to the microscopist, the report would undoubtedly be "a most malignant epithelial growth," because he would find epithelial cells with no structure—an encephaloid. But if I move further to the side, and cut off a little of the hypertrophied skin, the report would be, "a most malignant epithelioma," because he would recognize the tissues of the skin with an infiltration of epithelial cells. Furthermore, if I were to cut further outside of the growth, the report would be, "a true sarcoma," because the epithelial layer would not be affected, but only the fibrous connective tissue, with a great hyperplasia, consisting of fibrous cells in various stages of development.

This man presents two ordinary, large ulcers of the leg. He has been treated as well as he could be by sterilization with acid sublimate solution. Now, having a good, healthy substratum, I propose to supply the skin by taking some from his thigh and placing it upon the ulcers. I shall follow, in doing this, Thiersch's method. Reverdin's method consists in taking a small piece of skin and placing it in the center of the ulcer. Thiersch thought that if a small piece of epithelium would act well, perhaps a larger piece would do better, and he put this into operation with success. The skin should be placed evenly over the wound, and the whole covered with a sterilized dressing.

THE managers of the Maternity Hospital have been obliged to issue a fresh appeal for funds, as their treasury is almost empty, while the demands upon them for help are great and imperative. This hospital is managed on liberal principles, which entitle it to special consideration from the generous minded. It not only ministers to the bodily wants of its patients, but helps to save some among them from despair and crime. But it is without funds, and depends for its maintenance upon the contributions of the public. The Treasurer is Mr. William H. Ingham, No. 308 Walnut street.

Original Articles.

SEROUS CYSTS AND CYSTIC FORMATIONS; ABDOMINO PELVIC.[1]

By THOMAS H. MANLEY, M.D.,
NEW YORK.

CYSTS and cystic formations, in every degree of development, being of very frequent occurrence in that cavity roofed above by the diaphragm, I shall select that entire district for study, below the thoracic arch; bounded laterally by the parietal muscles of the abdomen; anteriorly by the median line, the central recti, the ensiform cartilage, and pubic symphysis; posteriorly by the spine and the powerful dorsal muscles, which play in either of its lateral grooves; the abdomino-pelvic cavity, which in the female encloses all the organs of generation, and, in both sexes, the whole digestive apparatus, except two short segments, at either extremity.

Since the advent of modern innovations, which have made it possible to study the elementary nature of neoplastic formations, and to treat them successfully with the aids which scientific investigations have placed within our reach, it is interesting to consider in what they consist, and estimate their practical application, as far as they concern serous cysts and cystic formations. In the present instance there is no pretence to enter *in extenso* into an elaborate or tedious survey of the prodigious strides made in the way of dealing with intra-abdominal cystic disease during the past twenty years, or examine into the validity of the almost endless theories regarding its primary cause. My object will be rather to direct attention to a few features, in connection with this study, which seem to be of some interest, and, perhaps, a little practical value.

THE NATURAL HISTORY OF SEROUS CYSTS.

What is the essence of cystic disease? Have those liquid cysts an independent existence, and do they possess within themselves the power to reproduce and multiply their like? Have they a life limit; advancing to a certain stage of development, and then manifesting retrogressive changes?

A serous cyst is a structure of a low grade of development; because it does not, under ordinary circumstances, produce mixed elements, and it maintains to the end, when unincumbered by pathological changes, its original histological structure. Consisting, anatomically, of an investing envelope, which is composed of cellular elements with more or less numerous nucleated strands of fibrous tissue, it becomes eliminated only by age or inflammatory changes. Internally lined by endothelial cells, which have the property of both increasing or diminishing the quantity of the enclosed liquid. Externally, as it leaves its primitive nidus, it lifts up, and invests itself with a duplicature of peritoneum.

The liquid contents, although designated serous, possess no properties in common with the serum of the blood, except in physical character, and are generally of a low specific gravity; of an alkaline reaction; bland and unirritating.

They sometimes are found with a narrow, pedimentated base, but more often they have, along with an extensive attachment from beneath, several collateral adhesions.

We have monocystic and polycystic growths; the former being the most common; with the latter we may find, springing up from the center, one very large parent cyst; about the root or stalk of which there arise, like so many buds or offshoots, several others of varying sizes. There are not infrequently clusters or groups of these daughter cysts studded over the outer surface. What is, perhaps, most frequent, they form internally, in bunches, and fuse together, when the neoplasm is designated multilocular.

That cystic tumors may undergo, in the process of time, myomatous, colloid, fatty or puruloid changes, is now an unquestioned fact.

How those cysts originally come into existence is yet unknown. There has been much speculation on this subject; but no theory has yet been constructed which will satisfactorily account for them. The latest view is, that they arise from anatomical or corpuscular elements, which, in intra-uterine life, wandered away from their normal habitat, and were not absorbed or assimilated, but, in the progress of time, under favorable influences, asserted their individuality, or aggregated together, and made their existence manifest under divers forms.

Another, later, and more plausible view is, that they have their origin in unabsorbed fœtal remnants, in the female, from the Wolffian corpuscles and the rudimentary Graaffian vesicle.

This latter view, however, has no substantial logical support, and is opposed by facts which render it utterly nugatory; among which may be mentioned the fact that the fœtus *in utero* itself may be the subject of such extensive cystic growths, within its abdomen, as to render delivery by the natural passages impossible. Further: why should there be but isolated cases of serous cysts, arising from stray corpuscles, when those so-called fœtal remains can be demonstrated microscopically within the basic substance of the broad ligament, and in the reticulated structure of the ovary, in nearly every subject?

Lastly, although those who maintained the theory of primitive, ante-natal origin have specially selected the male and female genitals, as the parts in which the work of evolution is retarded or deranged, yet, as a matter of fact, serous cysts may be found in any structure within the abdomen, invested by the peritoneum.

They possess most active regenerative power; hence, when extirpated, they frequently reappear, regardless of whether any portion of the matrix is left or not; and, if not springing up in the same locality, they may elsewhere; when we say, the person has a predisposition to cystic disease.

That they have a life limit and are independent entities, I am strongly convinced. In the whole range of creation the expanse of life has confining lines; hence, judging from analogy and from the frequency of cystic disease, found *post-mortem* with those who in life were unconscious of its existence, we may assume that, as a rule, they reach certain stages of development, when they cease to grow and fade from sight.

From many conclusions arrived at only after careful reasoning, I am convinced that like the hepatic or cerebral cyst of echinococci, depending on the liver-fluke for its existence, these serous cysts have their origin from an undiscovered microbe which gains entry by way of the ærian or alimentary passages, and that when this germ finds suitable soil, or the system is in a receptive state, it rapidly develops.

A serous cyst is parasitical; fastening itself on and drawing its sustenance from wherever it may commence its growth.

[1] Read before the New York Medical Association, October 22, 1890, in New York.

These formations are essentially degenerative in their character, and though they grow and thrive under most diverse circumstances, yet it can be scarcely said that one is in perfect health who has borne them in large numbers, or of considerable size.

Against the doctrine of extraneous or extrinsic origin, it may be alleged that we may find those tumors when direct infection would seem impossible; as when we encounter them congenitally. And, besides, because nothing has been discovered by microscopists which would tend to support this hypothesis.

All must admit, however, that they are excrescences, and have very many features presumptive of independent organization; and that their presence in the brain of the fœtus is conclusive proof that the microbe or offending agent may enter through the circulation.

That the infinitesimal elements which may go to originate these cysts have so far eluded the microscopist no one need wonder at, as their study, in the direction of pathology, though so far of singular partiality, yet is but in its infancy.

ETIOLOGY.

With the microbian doctrine as a fundamental basis to start on, the causation of these growths under consideration is greatly simplified, and their nature better understood. Without it, as we are to-day, the etiology of serous cysts may be written in one line: We absolutely know nothing whatever about it. We are rich in speculation and theory on the subject; in fact, however, we are in total ignorance. Why, indeed, that we should usually go to advanced age before these cysts appear; why one brother is attacked, and another free, or why women are most subject to them, we do not know.

But there are many phases of these developments, with which it is highly important that we should familiarize ourselves, particularly in relation to their natural history.

As this parasitic formation may be regarded, as a rule, as a process of degeneration, we meet it very frequently in the aged female, on the periphery or in the stroma of the ovary, about the kidney and other situations. In forty-three post mortem examinations in my service at the New York almshouse hospital, on women past sixty, thirty had cystic disease in the ovary; some on one side only, but a large proportion on both.

Age then must be regarded as a predisposing cause. Sex: The female, by all odds, is the greatest sufferer from ventral or pelvic tumors. Maidens, barren wives, or women who deliberately diminish childbirth are more prone to cystic disease than good breeders who bear large families. At the climacteric, the menopause, the third epoch of woman's existence, these tumors are most disposed to make their existence known.

Sex makes its impress felt in the organs most susceptible to the disease under consideration. The uterus and its adnexa are the favorite areas of selection in the one; while with males the renal tissues, the supra-renals, the lumbar, sacral, omental, and mesenteric elements seem specially susceptible to encysted dropsies, or what is commonly known as encysted peritonitis.

There can be no question, in my mind, but many of these so-called abdominal dropsies—ascites—in which there may be a large, but quite symmetrical, accumulation of liquid; and wherein there is an absence of evidence of organic disease, and medicines make no impression, but one free tapping promptly cures the patient permanently, the medical attendant may mistake a local condition for organic disease, and he may simply drain a cyst without entering the peritoneal cavity at all. There seemed to come such a case under my observation not long since. It teaches a most practical lesson, and, though my diagnosis was lacking the confirmation of post mortem examinations, yet I scarcely think a mistake was made.

A young man of twenty-three years had been ailing at home, of some obscure abdominal disease which resisted medical treatment. As his funds ran low and he was advised that a hospital was the proper place for him, he entered one of our principal institutions, where he was purged, blistered and starved—put on milk diet; but his belly became larger and harder; his urine icteric and scant; and, owing to his stomach being crowded back against his spine, though he was hungry, anything entering it added to his discomfort. His distress for breath was so great that he did not venture to lie down for fear of smothering, and hence what snatches of sleep he got were taken in the sitting posture. Making no improvement in hospital, his parents took him home.

From the history that I got, I was not so sure about his condition being wholly attributable to organic disease. He suffered from pain, sometimes before the swelling appeared, and the fullness was said to have risen in the epigastrium and descended towards the pubes. Besides, on physical examination of his abdomen, which was greatly distended in the left hypochondriac region, low down, the tympanitic note elicited indicated the bowel lying against the abdominal wall, and not away from it. No change in posture altered this; hence, taking everything together, I ventured to assure the parents that I could very quickly give him a chance for his life, and probably cure him. To make certain, I passed in an exploratory needle, but superficially, and was rather chagrined to find a fluid with all the characteristics of ascites. Passing it in again deeply, in the opposite flank, where the swelling distinctly but slightly bulged, I withdrew a watery liquid wholly unlike the former.

Taking each away in a separate vial, I examined them, and found one bile-stained serum, and the other opalescent in color, of a low specific gravity, with no cell detritus, and of such composition as we commonly find in ordinary cysts. I was now satisfied that the ascitic fluid was secondary, and the bile-tinge was due to an impediment of the gall-flow, a retention. On examining the urine, I found it highly albuminous. Both lower extremities were in an anasarcous state. As a free incision was not permitted, after due antiseptic precautions I thrust a large trocar into the most prominent and resistant part of the abdomen, low down, near the median line, in the left iliac region. Something more than two gallons of cystic fluid escaped. I then twisted into the puncture a strand of silk for drainage.

This young man rapidly and completely recovered. All his organic ailments were solely attributable to pressure, which, when removed, not only gave immediate relief, but was quickly followed by full unrestrained functional and organic action.

Had his condition been as presumed, and as treated for, the evacuation would have been followed by a refilling, and the organic disease would have remained.

Although cystic-disease seems to manifest a special predilection for the female genitalia in early life, with the male it is more common in advanced age, in the external genitals, in the form of spermatocele, simple and encysted, and as hydrops vaginalis. Renal

cysts, too, are more common in the male, and also make their appearance late in life.

The intimate sympathy between the generative and urinary organs is a matter of common observation. In kidney disease sexual desire is usually in abeyance, while in consumption the power of procreation remains to the last. With the female, this association is not so evident, nor is parenchymatous or calculous disease of the kidney as common with them; however, it is seldom that there is any wide deviation in generative function with them that there is not a responsive renal manifestation. The frequent coincidence of nephritis, albuminuria, or even total suppression of the urine, in pregnant women is often witnessed.

So that, I think, inasmuch as serous cysts are seldom seen, except in the reproductive and urinary organs, their origin and growth often may be regarded as in some manner as yet inexplicable connected with their functional derangements. I have met with two cases of abdominal cysts which might be traced to traumatisms.

The relation between cause and effect here is not very clear under those circumstances, hence the only explanation I can offer, is that the nucleus, or germ, was present in a dormant state, and was roused into active growth by the vascular engorgement, co-incident with the incipient inflammatory state, following the injury. This is often the history of cancer, and, I think, will occasionally apply to benign growth as well.

THE MORBID ANATOMY AND PHYSICAL CHARACTERS OF SEROUS CYSTS.

Before an attempt is made to discuss the pathological changes and morbid conditions resulting from serous cysts, which compromise health, or endanger life, we must have a clear understanding of the regional anatomy of the abdomen; its guides and landmarks. Probably for general purposes the arrangement of Treves (Applied Anatomy) is as useful as any; but for surgical purposes I prefer the plan of Hewitt and H. Marion Sims (Abdominal Tumors, etc.), according to which a horizontal plane passing through the tenth rib on either side is the epigastric region; the lateral portions of which are the hypochondriac regions. The umbilical region is bounded by the lower limit of the epigastric region, and below by a line passing between the anterior superior spines of the iliac bones, on either sides. The hypogastric region includes that portion situated below the line last named; the inferior boundaries of which are the ossa puberes and ligament of Poupart.

It can be readily perceived that after a large cyst of deep origin has gradually advanced toward the surface, pressing aside, crowding beneath, or ballooning up the solid and hollow viscera, gluing them together, twisting and compressing them into every conceivable shape and direction, the normal lines, curves, angles, and grooves of descriptive anatomy have but little practical application; hence, when an operation is undertaken, the operator must not only be familiar with the undisturbed arrangement of health, and also the changed appearance with respect to color and visible characters, but he must also employ his sense of touch, which is the most valuable of adjuvants in the physical diagnosis of the abdomen. The ear and nose, too, must be trained to assist in emphasizing and interpreting the confused and embarrassing condition often present.

To meet these requirements a practical knowledge of morbid anatomy and applied physics must be attained. The cyst coming in its primitive stages from a microscopical corpuscle assumes every diversity of form and outline; spherical, oblong, flat, conical, branched, serpentine, and many others, according to the quality and direction of the resistance which it encounters.

The enormous distending power of the imprisoned liquid of those sacs, I must acknowledge, is, to me, quite incomprehensible. There certainly is no principle in hydraulics to explain it, as far as I can learn. A concentrated pressure to the square inch, which will put the cystic wall in such an extreme, resisting tension as to give it the hard, stony feel of a compact scirrhus growth, and deceive the touch of a trained diagnostician, one would think must choke off every sort of circulation in the vessels which nourish it.

The walls of a barren cyst are of varied density, but never very thick. The tumor remains pedunculated, until, by friction or weight, it chafes the neighboring parts, when plastic inflammation binds it to them. Now, as it swells in volume, or changes its direction, it drags along with it those movable viscera, with which it is firmly bound, and we begin to notice these symptoms, or warnings of the economy, that a tubular structure, or important organ, is becoming compromised; and if we are not guarded, and fail to examine critically into the case, we may attribute the condition as dependent on constitutional and not local influences.

The histological, or minute anatomical, cells of those cysts occasionally take on many changes, both in their chemical composition and morphological elements. They are dependent on variation in the vascular supply, on inflammation, and inoculations peculiar to all neoplastic bodies as age advances.

Besides, it is fair to presume that many of them, particularly in the female, undergo spontaneous rupture, or give way to sudden pressure or strains, and are wholly absorbed.

Along with atrophic changes we may have those dependent on increased vascular action, accompanied with a diapedesis or transudate of leucocytes and coagulable lymph; which adds to their former translucent color a flocculent turbid material, giving the cysts contents the appearance of genuine pus. The watery elements of a cyst occasionally assume a gelatinous consistence, or when the smaller capillaries rupture, blood is blended with their alkaline contents, which gives them a dark pigmented appearance. When many cysts fuse together we have the polycystic, or multilocular tumor, which is seldom seen, however, except in the female, and attains vast dimensions. This growth is composed of most complex elements, and as it clearly belongs to the proliferating, more highly developed new growths, it will not be considered here. Cystic disease within the abdomen is said to be intra-peritoneal and extra-peritoneal.

Neither assumption do I regard as quite correct. Every so-called intra-peritoneal cyst has a peritoneal investment, except at its stem, where it comes up from the areolar tissues. The retro-peritoneal, or extra peritoneal — among which are classed the renal and lumbar cysts—originate in or about the serous glands of the pelvic-fascia, and invariably have a peritoneal investment. But there is this important anatomical difference in the situation of the two, viz.: that one can be reached and drained without in any way involving the serous membrane; while in the other, the peritoneal cavity must be always opened.

Cystic disease may arise simultaneously with cystic formations. This association may lead to great difficulty in diagnosis, and unfortunate results in treatment. No nook, passage, or tract on the surface, or within the many complex and intricate folds of the peritoneum, but may be the seat of cystic growths. Hence, when they arise in close proximity, or in connection with various organs, their presence may be mistaken for other pathological conditions, if this fact is not constantly borne in mind.

CLINICAL HISTORY AND DIAGNOSIS.

The subjects of cystic disease are seldom afflicted with pain, until the tumor, by *its* size or location, presses on a nerve, induces obstruction, or excites inflammatory action. Many may carry them a life-time, unconscious of their existence.

Yet it is a rule, that in a person with extensive cystic disease, there is a want of *embonpoint;* physical vigor is diminished; the nutritive processes are defective in action, and bodily strength is greatly impaired.

The patient, often long before the cyst has been suspected, and even when of small size, will complain of deep seated fugitive pains; at one time intense, and at another of none at all. The appetite fails, and comfort is best secured by rest in the recumbent posture. If these growths occur in the female, at each monthly flux there will be an aggravation of symptoms. I have noticed in every case which I have yet seen, that the skin has a clayey, tawny color, not unlike the cachectic tint of malignant disease.

The location, extent of distress, and constitutional disturbances, depend on a multiplicity of factors. In one but slight inconvenience is borne, while in another life is tortured with racking pains; patience, fortitude and hope fail, and the stoutest, most vigorous and energetic, give way and succumb.

The symptoms, those dependent on vascular, neural or inflammatory changes, will accentuate themselves in proportion and character according to the organ or structure involved. They arise primarily from two causes chiefly, from pressure and inflammatory action.

By tension, strain, or weight on important nerves or their filaments, pain localized, diffused, and reflex arises. The intimate intermingling, or close association of the branches of the genito-crural, lumbo-sacral and the external pudic nerves, give rise to a most embarrassing association of symptoms, when serous cysts of small size but of firm consistence develop along their course.

In the female, under these conditions, the pain may be referable to the ovary, uterus, ureter, kidney or the deep structures along the pelvic floor; hence, its clinical significance, when taken alone, is of little value. The size of the tumor may not always occasion so much inconvenience or interfere with functional activity, as one of minor dimensions which has contracted extensive adhesions, and will not permit of the free play and the unrestrained movements so necessary to the varying capacity and shifting relations of the abdominal viscera.

Among the many pathological phases of structural and organic implication witnessed in the progress of development, we may mention a few of the greatest practical import:

The first and most destructive is that in which by weight or tension, the contents, circulating or occupying a tubular organ, are impeded or wholly arrested. When the larger trunk of an emulgent vessel is obstructed we will have œdema of the limb, a turgescent state of the blood-vessels, and peripheral congestion. Symptoms attributable to compression of the vesical outlet of the bladder or the rectum cannot be misconstrued. It is only when the cystic walls occupy a wide spread area, and commence to encroach on the blood-trunks of the chylopoietic organs, the portal system of vessels, the hepatic and renal viscera and their excretory ducts that we are warned of the serious inroads on health which a serous cyst may originate. Of the solid viscera within the abdomen the kidney seems to suffer most. Lying in close apposition to the spinal column it comes in for a large share of compression when the growth presses from before backward. Its long excretory duct, passing downward behind the peritoneum, and over the sharp edge of the pelvic rim, is greatly exposed to occlusion, both by tumor pressure and obliteration of its lumen as a result of excessive plastic exudation.

Accordingly, in those instances in which we have associated a renal cystic formation from a urinary back flow, and enormous distension of the renal pelvis with a common non-proliferating serous sac, it would appear that the secondary difficulty occurred by the cyst in some way pressing aside, hoisting, or closing the ureter, when the enlargement within the renal capsule followed.

This view is strongly sustained, too, by certain unequivocal chemical phenomena. As, for instance, when the patient first complains of the deep-seated pain along the loins, in the back, or pelvis, there is no diminution in the quantity of urine voided, or variation in its chemical or physical composition, we know the gland is not involved. But, on the other hand, when contemporaneously with the now visible swell made prominent by the serous fluid crowding a cyst outside the quadratus lumborum muscle in the direction of the least resistance, or if the serum gravitate into and behind the loose sacral fascia, lifting up any pelvic cyst which may lie in its way, we are soon made aware of serious renal complications, by symptoms of suppression, auto-intoxication, and marked constitutional derangement.

As *renal* cysts, liquid encapsulated growths, are more common in the male sex, arising in the loose cellular tissues in which the kidney is lodged; when a man much past the meridian of life complains of deep-seated pain high in the loins with no evident kidney disease, particularly if there be a localized, movable fullness, we should examine cautiously, and make a diligent search for a neoplastic growth of the serous genus, for no hygienic measures or constitutional remedies will avail to give relief, and valuable time will be lost by temporizing expedients.

When we reflect what a complex anatomical structure the lymph-sac of the abdomen is, with its manifold reflexions and duplicatures, and remember that anywhere within its laminæ those serous cysts may rise, we may form an idea of the number of organs in immediate contact, and even remote, which either primarily or secondarily suffer functionally or structurally in encysted dropsies within the abdomen. We may also contemplate, if we cannot interpret, the almost infinite group of symptoms.

The serous lining of the abdomen possesses two qualities prëeminently peculiar to itself.

Along with its wonderful power in absorption, it will respond to the slightest irritation by plastic inflammation.

Now, when the growth of a liquid tumor is gradual, and it spreads among the movable viscera, it

may, in the female, occupy a very wide-spread area without embarrassment to the respiratory act, as, with her, breathing is almost wholly thoracic. With the masculine sex, on the contrary, when free movement of the diaphragm is paralyzed, death is imminent from suffocation, so that by this mechanical impediment—a voluminous tumor—alone, life may be sacrificed. The peritoneal surface is tolerant to the intrusion of a neoplastic tenant, when it spreads evenly and develops slowly; but in time it will restrict its movements and unite with it by adhesive inflammation.

It is, no doubt, at this stage that the patient becomes, for the first time, conscious that there is some thing wrong, as indicated by localized pain of a persistent character.

Ordinarily, the peritoneum and the subserous cellular tissue are quite destitute of sensation; but when inflamed it is exquisitely sensitive, and is the seat of pain, which, if unrelieved, often is quickly fatal.

Those peritoneal tumors which spring up from the pelvis, and mainly occupy the hypogastric region or either flank, or those originally sprouting from some minute element within the epiploon or mesentery, but are within the peritoneal cavity, are not attended with so much difficulty in diagnosis as that variety known as encysted peritonitis, or those which continually take a course under the retro-peritoneal tissues.

The latter, lying behind the peritoneum, attaining vast proportions, and ballooning up the intestines in their march towards the pelvis, are extremely difficult of recognition, and may be confounded with ectopic pregnancy, local hemorrhages, phlegmonous disease, or ovarian tumors.

They generally may, however, be recognized by the clinical history and physical diagnosis.

Effusions into the broad ligament, or growths developing within it or the ovary, commonly lie in contact with the parietal peritoneum, *anterior* to the hollow viscera; while with retro-peritoneal cysts, or those rising in the lumbar renal or the mesenteric glands, the bowel lies *in front;* and while the patient has, perchance, an enormous dropsical effusion within the abdominal walls, with embarrassing respiration, inducing distraint in the circulatory and secretory organs, yet the peritoneal cavity is not involved; in fact, the sac, with its inclosed viscera, is lifted *en masse* and tossed about in a most distorted shape, like a sort of float, while the loose pelvic tissue and lumbar fascia are stretched from their attachment by the enormous liquid accumulation.

In a case coming under my care, of this description, this last summer, the patient suffered most terribly. His bowels and bladder annoyed him exceedingly while hungry, yet the admission of food into the stomach gave him additional distress, and he was not quite at ease till he vomited. So labored was his breathing that sleep in the recumbent posture was impossible.

Pain in the back, the loins, down the course of the anterior crural nerves, and up, over the pericardia, distressed him unceasingly. The lower limbs and the scrotum were greatly swollen, as in the preceding case, by œdema, and even over the sacrum, the thumb would leave a deep depression.

In his case two well-known consultants had failed to make a correct diagnosis. One would have it cancer of the kidney, the other set it down as cirrhosis of the liver, with ascites. It is needless to say that they gave no hope of recovery, as well they might had their opinions been correct.

A minute and detailed description of the differential diagnosis of those serous cysts growing only from the female reproductive organs cannot be undertaken, on this occasion, for it is a subject which strictly belongs to the specialist in women's diseases, many of whose valuable monographs and treatises can be had in any medical library. It is evident, then, under many circumstances, that one may confound cause with effect; that skilful physicians, from over-confidence in their ability, or undue haste in examination, may attribute certain signs to organic disease within the abdomen, when the real difficulty is wholly external, or in a part in no connection with it, but is all the result of hydraulic pressure spread from cysts.

CYSTIC FORMATIONS.

Everything not originally arising from a microscopical element, of a liquid nature, which is encapsulated, may be regarded as a cystic formation, although Sir James Paget excludes the products of inflammation—as abscesses, or pus accumulations, and hematomata — from the category of cysts. They are mainly attributable to blocking of the tubular passages of exit for the gland yield.

The ureter is obstructed, either by a calculus, a narrowing of its lumen, from inflammatory channels within, or malignant disease from without. The ureter bursting, the escaping urine dripping into the peritoneal cavity is often encysted, until the rent is healed or the impediment removed.

This obstruction of the urine is hydronephrosis, and becomes pyonephrosis when the cysts' contents take on purulent changes, either before or subsequent to the artificial evacuation of the liquid. Of forty-three recent cases of hydronephrosis which I have collected, twenty nine, or nearly two-thirds, were on the right side, and of them twenty-six were in men.

As the cæcum, the gall-bladder, the orifice of the pancreatic duct lie on the right of the median plane, we must expect to find every sort of enlargement here, or adventitious formation, more numerous than on the left side.

Impediment to the free passage of a gland's secretion depends on conditions which originate within itself, and those which operate through disease of adjacent parts.

Biliary and renal concretions, when large, and not acted on by the bile or urine, are occasionally impacted in the duct. Malignant disease, infiltrating in every direction, will seldom, when in proximity to the kidney or liver, embrace or wholly occlude their drain-vents. In fact, a new growth of any kind may crowd them aside and close them. When the opposite kidney is healthy, and the back-flow is recent or of small quantity, beyond some slight, local disturbance no marked impression is made on the constitution. But when the renal pelvis expands, the hydronephrotic fluid increases in volume; the systemic circulation becomes impregnated by absorption, the urine is diminished in quantity, and highly albuminous, and the time has arrived for prompt surgical interference. A hydronephrotic cyst is of more rapid development than a simple cyst, and from the history, with the direction which the accumulation takes, it may generally be recognized. However, if there is much doubt, the exploratory-needle is an infallible test. The chemical examination of the quantity withdrawn will decide the question. As the encapsulated urine is always behind the peritoneum, the needle entering posteriorly is *outside* the peritoneal cavity. Certainly there are many pathological conditions in which the use of the exploratory-needle is interdicted, as it is only when the enlargement is

of a fluid character, and we are quite certain it is extra-peritoneal, that we may adopt this expedient with safety and advantage.

We can scarcely confound a hydronephrosis with other allied conditions; provided the state of the patient be thoroughly investigated, and we keep our patient under observation an ample length of time to enable us to come to a correct diagnosis by exclusion. A visceral, cancerous growth is attended with little pain. But when imbedded in the loose tissues of the loin, it may present characters of a kind which will puzzle the most wary and shrewd diagnostician.

The kidney itself occasionally takes on parenchymatous changes of a sarcomatous nature, which will greatly swell its volume and cause displacement. Pus accumulation, or hemorrhagic extravasations, in the iliac-fossa, when the clinical features of each is considered, will not probably mislead.

Happily, simultaneous, or double hydronephrosis, is never met with; at least, in scanning the English and French literature on renal pathology, I find no well authenticated case of such a complication. Hydronephrosis may have various terminations, when art does not interfere. If the ureter is clogged by a blood-clot, a mass of fibrinous lymph, or a small calculus, as soon as it disintegrates the canal is reopened, the swelling collapses, and the symptoms suddenly vanish.

In the event of a thrombus or impediment remaining, the pressure on the renal artery will reduce the blood supply, and gradually produce an interstitial absorption of the secreting structures of the kidney, so that in time, as the gland finally yields up its existence and wholly disappears, the remnant of aseptic urine is disposed of by the circulation. This theory, I believe, will account for the occasional absence of a second kidney in cystic disease. It certainly is singular that nature should be so often remiss here. I have yet to learn of a fœtus born with but one kidney. Whoever heard of an infant with one lung or with one testicle (except ectopic) at birth?

The cyst may burst into the peritoneal cavity or into the loose, cellular tissues.

The most common termination for it, however, is to gradually destroy, by mechanical pressure, inflammation, pain, and wear on the constitution.

Obstruction of the ductus communis choledochus, when permanent, is inevitably mortal, unless the gall can reach the bowels by some route other than the duct.

The etiological factors of causation are essentially the same here as with the kidney, but owing to the wide difference in anatomical arrangement, and the physiological properties of the bile, its retention, with cystic distention, is one of the most formidable complications which the surgeon ever can be called on to deal with.

The only pathological condition in connection with the liver, apt to be confounded with simple obstruction, is that dependent on echinococci and hepatic abscess. The parasites of hydatic elements gain access through the digestive organs usually, and infest the gall-bladders and hepatic tissue by mounting the cystic duct.

A cystic formation, originating from those entozoa, may undergo rapid development and speedily destroy life, if not relieved. Such a case I saw in a boy seven years ago, in whom one of those masses developed within a week, as nearly as could be learned. They sometimes take an opposite course, however, as the eloquent Watson relates in his incomparable "Lectures on Physic." (3d Amer. Ed., page 512.)

His patient was a young nobleman, in whom, while examining for chest disease, he found a large tumor over the area of the gall-bladder, with a smooth, convex outline. The young man never suffered the slightest inconvenience from it.

He died some years later, when, on post-mortem examination, the cyst-wall was found shrunken and collapsed, and filled with the husks and débris of liver flukes, long since defunct; these remains were now entombed within the envelope, whence they had drawn sustenance.

The gall-bladder is capable of enormous distension. Lawson Tait tells us how he has mistaken it for an ovarian-tumor (*Lancet*, May 12th, 1890.) The gall-duct must share this property of extreme dilatation with it to a large extent, else we could not account for the passage of the immense angular and faceted biliary calculi which find their way into the intestine, and escape without detriment.

When the bile is shut off from the intestine we have most marked and unmistakable symptoms of serious trouble. If the bile is dammed back it seeks a temporary outlet through the blood, when the kidneys come to the relief of the liver, and eliminate large quantities of bile through the urine.

Owing to the absence of the secretion with the ingesta in the intestine, digestion is deranged, and, independent of auto-intoxication, in time the patient will sink from malnutrition or inanition.

A rupture of the cyst under these circumstances, when the bile has become concentrated and inspissated, must be followed by a fulminant peritonitis. Generally, as the walls of the gall-bladder spread upward, they excite a localized perihepatitis which glues the gastro-hepatic omentum, the cyst, and parietal peritoneum together in such a manner as to now safely confine the accumulated bile, and make the incision into it a safe and simple expedient.

Malignant disease starting in the stomach as a secondary growth, involving the gastro-hepatic omentum, by contiguity soon extends into and implicates the secreting structure of the liver within the capsule of Glisson, which, when in close contact with the conical terminus of the gall-bladder, may cause obstruction, partial or complete. However, considering the relative frequency of cancer and sarcoma in the hepatic tissues, the absolute arrest of the gall-flow by infiltration or contraction is rare. I saw two cases, recently, which demonstrated this conservative provision of nature in this respect. In one, a young woman, a sarcomatous growth had nearly tripled the normal volume of the organ, and yet there was no involvement of the biliary passages. With the other, who was an aged man, with multiple nodular disease, likewise the passage to the bowel was patent.

The symptoms peculiar to cystic obstruction have reference to secondary conditions dependent solely on arrest of hepatic function in the beginning, but later on to systemic intoxication, with its attendant and contributive consequences.

We will have the same colicky pains, loss of appetite, and loss of bodily strength, disordered digestion, and localized fullness when the cyst's contents advance towards the surface, as encountered with the organ in the loin.

Although the pancreatic or thoracic duct may close and become encysted, and watery tumors in other organs or tissues within the abdomen arise, their occurrence is rare; and what has been said of cysts

formation elsewhere situated, will generally apply to them.

TREATMENT—PALLIATIVE AND RADICAL—OF SEROUS CYSTS.

The prodigious progress wrought in operative procedures of late years has largely revolutionized the surgical management of new formations.

Since we may at our leisure cut off, as it were, the corporeal from the psychological being artificially, and place our patient in the quiet, lethal sleep of anæsthesia, sensation is in abeyance, and we strip an operation of all its former horrors. Besides, now, those harrowing anticipations of the dreaded ordeal are something of the past.

On the part of the operator, his case judiciously selected, he may promise recovery, frequently, with almost a certainty. He feels no longer the terrible apprehension of former times, but nerved with a confidence born of a correct knowledge of the application of modern resources, of anatomy and its cognate studies, combined with ample practice, critical observation, and extensive experience, he proceeds to lay bare the most delicate and vital structures at his leisure.

It would seem, then, that the question of how those local dropsies or simple serous cysts are to be managed, was finally settled beyond dispute or argument.

But the human body is something more than a machine, and there are many circumstances which demand our most careful consideration before extreme measures are resorted to.

No one would press for a surgical operation in the aged, or one suffering from a serious constitutional disease.

Probably, with the majority of cases, those simple, non-proliferating cysts, in the course of time spontaneously disappear, or remain in a quiescent state, giving little inconvenience, except by their weight.

Further, the extirpation of them does not always warrant their non-return, as the systemic predisposition to their reappearance remains; and although they may not return in their original nidus, they often do elsewhere, after a limited time.

An extensive, free incision into the abdominal walls results in a diminution of power and a tendency to hernia. When evulsion of the sac entails tedious detachments of adhesions, a viscus may be lacerated; we may have troublesome hemorrhage or ultimate active inflammation.

We must not allow ourselves to be deluded by the records of palatial hospitals, as their statistics can scarcely be regarded as reliable criteria for the isolated rural practitioner. Not that they are wanting in truth, or are varnished, but because there is but little comparison, often, in the facilities for operating. In many hospitals the cases are selected with great care; the operator is supported by a staff of trained assistants, accustomed to operations; he has everything in the way of appliances and instruments which art and a lavish outlay can provide. Added to all, good nursing, and fair hygienic surroundings.

When cystic disease threatens to compromise health, and is the source of pain or discomfort, internal remedies will make no impression on it, and we are obliged to actively interfere in many cases. The elder generation of surgeons and practitioners recommended physiological measures of relief when the cysts were of recent growth in the pelvis of the female. They recommended marriage and childbearing. Their premises were sound, for when fecundation followed copulation, the immediate active vascularity in the former languid, congested capilliaries soon aroused the latent vitality in the reproductive organs, and all superfluous adventitious productions of recent growth and moderate size underwent degenerative changes and disappeared. Others, of greater volume and of compact capsules, as the gravid uterus, raised out of the pelvis, were torn from their attachments as crushed as an egg shell against the sharp ridge of the pelvic brim. The parturient state passed, and involution complete, nothing remained of the adhesions or the cysts. If they did, a repetition of the same treatment was prescribed. Simple cystic contents are quickly taken up by the absorbents, and the remaining shell undergoes rapid atrophy.

Palliative treatment consists in measures intended to effect the absorption or arrest the advance of these excrescences. A well-adjusted bandage seems not only to give comfort and support, but also to favor their diminution in size.

I have never seen any benefit derived from massage or electricity, either through their physical, vital, or dynamic action. When they do seem to yield to these agents, I think it is through psychological effects rather than any direct specific action, as it is well known that many varieties of motion or sudden mental impression will often exercise a most marked influence on every variety of neoplastic growth.

When it becomes imperative to remove a simple, barren cyst by surgical operation, we may proceed chiefly by two methods.

One contemplates the puncturing and draining of the sac, with its irrigation and destruction of its secreting cells, by the action of an agent acting locally. This may be designated the conservative or partial operation. The other is the more radical and bloody. It embraces the exposure, detachment and total extirpation of the capsule.

The former method, in a general way, is by all odds the most desirable. By it, in the vast majority of cases, we succeed in effecting a rapid and permanent cure. The simple puncture and evacuation are not attended with the besetting difficulties and dangers which accompany the total excision, even in the hands of the most adept. No general anæsthesia is needed; the local, analgesic action of the spray from a syphon of Vichy, or of some ether dashed on the part, in a state of pulverization, is all that is necessary, when we wish the avoidance of cocaine impression on the reflexes. When no serious obstacle lies in the way, this very simple expedient should commend itself to us for very many reasons, which are only necessary to mention. Among the most prominent, we may take the dispensation with assistants, which is no small item with the poor. The avoidance of an extensive mutilation or shock; and, besides, the escape from the serious lethal effects which may follow the administration of a general anæsthetic in one who suffers from organic disease. No instrument is needed, under ordinary circumstances, except a few perforated needles of various sizes, and a good double-injecting syringe.

There are, however, a few things, formerly observed as trifling details, if ever noticed at all, which now must be regarded in the most minute detail. I refer to the preparation of the hands, instruments, and the field of operation.

As has been already stated, these cysts are of a low organization, composed of primitive, simple elements, so that when their integrity is in any way rudely disturbed, they often suddenly disappear.

Hence, the reasons why some authors have found rupture of the cyst-wall, by a sharp blow, when of medium size, very often effectual and permanent in its results. (Velpeau, Leçons sur les Kystes, Chirurg. Vol. IV, p. 300.) I can see no harm in even bringing moderate power to bear on intra-abdominal serous cysts, and crushing their wall in by judiciously applied force. Judging *a priori*, to me there seems no valid reason why this disorganization of the tumor should involve any danger whatever.

When we proceed to attack a tumor by simple puncture, we have two main objects in view: to drain away its contents and obliterate the capsule by inflammation and absorption. The simple emptying alone, I have found in many cases all that was necessary. It is important, nevertheless, to leave a free vent, as the presence of any remnant of the fluid seems to act as a stimulus and invites a relapse.

When the cyst is an old one, or when it refills, we must, after evacuating, inject the sac with some antiseptic, irritating material which will chemically unite with the protoplasm and induce adhesive inflammation. Nothing is more efficient for this purpose than mercuric sublimate, in proportion of one to two thousand, injected after the sac has been well drenched with sterilized water and thoroughly drained. An objection to it is that now and again we may salivate our patient; hence, the reason that many prefer thymol, which is equally efficient and devoid of corrosive toxic properties.

I have had such happy results with the simple treatment outlined above that I feel justified in recommending its adoption in the treatment of the vast majority of cases of simple cysts, whether situated near the surface or deeply.

Should we have a suspicion that the growth lay beneath, or so convenient to an important structure as to make direct puncture dangerous, we may divide the super imposed parts with the scalpel, and not thrust in the trocar, till the bare cyst wall comes into view.

When the contents of the capsule have undergone myomatous changes, or when it is presumed that the neoplasm may be readily dislodged, either from its pedicle or the parts with which it has fused, we essay its complete removal by an abdominal section, as a preliminary procedure.

If no adhesions have formed, and the growth is of but moderate size, there will be little loss of blood, and its removal is simple and rapid. But when there has been much antecedent inflammation, and the investing envelope assumes a sort of flattened-cut shape, contracting adhesions as it insinuates itself between the varied duplicatures of the peritoneum, the peeling off of the parietal layer, without considerable hemorrhage and danger of laceration or rupture of parts which must be invaded, is very tedious and difficult, and may entail such shock that the patient never wholly rallies from the operation. Indeed, not infrequently its removal entire is an impossibility. Under these circumstances, we may open through the tumor, drain or scoop out its contents, and cut away with the scissors all that part of the sac within reach, staunch the hemorrhage, flush the peritoneal cavity, and drain or not, according to requirements.

These intra-abdominal operations for the extirpation of cysts should not be undertaken until full preparation has been made in the way of ample supplies of every description. At least three assistants will be necessary. Every step demands our most assiduous attention, for we must remember that in opening the cavity of the peritoneum the *ultimate* results will often depend on the observance of the most apparently unimportant and trifling detail.

Much depends on the time consumed in operating, and the extent of incision made. Air can enter in the peritoneal cavity, but we cannot get it out; and the longer the visceral nerves are denuded, and the greater their area is exposed to thermal influence, proportionally great is the shock.

It is indisputable, then, that the radical operation must always be regarded as a most extreme measure. We have seen that most distressing sequelæ may follow the bruising to which the parts are necessarily subjected in it—the adhesions, intestinal obstruction, hernia, or impaired functional power of those organs or structures, the full and free action of which is so indispensable to the enjoyment of health.

THE TREATMENT OF CYSTIC FORMATIONS.

Cystic formations proper, the retention cysts of Virchow, are managed on the same general principles as ordinary cysts. Some of them admit of palliative measures only, which entail but trifling dangers to life; while others, a small minority, may be permanently disposed of by a radical course, which, however, contemplates the complete extirpation of a physiological structure.

Probably one of the most frequent and fatal varieties of retention cyst within the abdomen is that connected with the kidney, and known as hydronephrosis—literally, dropsy of the kidney; but clinically understood to designate a back-flow of urine, attributable to an impediment. Pyonephrosis does not depend on the same etiological factors; hence, if it were described as what it really is, as a renal abscess or renal phlegmon, it would convey a clearer and more accurate definition. The object in view in the surgical management of hydronephrosis is to remove the obstruction and empty the distention by way of the ureter; drain it through an aperture externally, or go to the fountain head and lift the kidney itself out of the body.

Owing to the rapid infection of the wound after opening into a distended capsule before the days of antiseptics, the mortality was so great, even in the hands of the most experienced operators, that any intervention involving mutilat on was discouraged, and hence the majority died, unrelieved, who were afflicted.

Since the time of Listerism, or aseptic surgery, there is no organ of the body in which the domain of modern surgery has had a more salutary influence than the kidney: and, to day, thousands are saved, who but recently must have perished unrelieved.

The conservative or palliative treatment of hydronephrosis consists in drawing off the urine temporarily through an aspirator, with a view of relieving tension.

With a man under my care six years ago, who was struck with violent force by the fly-beam of a derrick, in the right groin, his urine diminished fully half in quantity, and almost immediately a painful fullness appeared forward, over the right iliac plate. I punctured it on four successive days, drawing away from a pint of urine on the first day to a quarter of the quantity the last time. He made a good recovery. I cite this as an instance of temporary obstruction of the urinary duct, probably from a blood clot.

The next means of relief consist in making an incision from behind (nephrotomy), and carrying the urine externally. I am acquainted with no instance where permanent success has attended efforts directed towards sending the urine into an intestine. The

last and most radical of all measures involves the total removal of the kidney, nephrectomy.

The latter is undertaken as a primary operation when the sac, urine, and gland are all swept away at once. As a secondary measure, it is performed when, sometimes after nephrotomy, we are confidently assured that little secreting substance remains, and that the other kidney unaided is competent to do the work of elimination.

The choice of operation then, when choice is permitted, lies between nephrotomy and nephrectomy. The latter may be a procedure of selection, while the former is one of necessity.

In order to reach an approximate estimation of the relative dangers of each in the pre-antiseptic times and since, with these renal operations, I will quote, in abstract, from an able brochure by M. Jeannel, of the Toulouse School of Medicine, published in the *Gazette Hebdomadaire*, July 19, 1890.

Of secondary nephrectomy he says: "It is less easy of execution, and attended with greater danger to life than when the primary operation was done under proper conditions; in any event, in the secondary operation there is less space to manipulate in; the large, empty, hydronephrotic pocket, suppurating, irritating, contracted, and firmly bound to neighboring organs, is much more difficult of management than when the kidney, supra-renals, sac, and all, are detached at once."

He insists on the danger of a hydronephrosis becoming a pyonephrosis through contamination; and he cites the reported cases in the hands of Nicaisse, Brodeur, Le Dentu, Kaufman, Braum, and Roemer, in which, in spite of rigorous antisepsis, nephrotomies (primary) were followed by suppuration and death.

Quoting from Guyon (*Annales des Maladies des Organes Genito-Urinaires*), he gives the mortality in primary operations as thirty per cent.; in secondary, ten per cent.; though, however, he asserts with emphasis that, with the manual of operation more precise, and the patient in a fair condition, it is always the safest to do the complete operation in two stages; the first being a nephrotomy, and second, nephrectomy.

Messrs. Jeannel and Brodeur together performed 18 nephrotomies, with no deaths; while of 44 nephrectomies—his own and others—11 died.

M. Jeannel, in concluding his monograph, calls attention to the causes of death in nephrectomies, which he believes were mostly preventable, and attributes them to either the technique of operation or impropriety of performing it. Hence he gives items as to causes of lethality with different operators.

Esmarch, Meadows, and Billroth each lost one from hemorrhage. Schleileg and Czerny, each one from absence of another kidney. Czerny, one from tear of the peritoneum and colon. Verneuil, one from an infection wound of the peritoneum. Watson and Goodell lost one each from unknown causes.

Now, while it is clear that those operations embracing the evulsion of a urinary cyst are practical and of utility, yet there are often insurmountable difficulties in the way.

The safest, least injurious, and most practical route to the kidney is by way of the lumbar incision. With the last rib resected, reasonable space is afforded to manipulate without entering the peritoneal cavity. As the general peritoneum has not been divided, the prospect of hernia following is not great. Being then on the border-land, and yet not within the serous sac, the operator is not annoyed by protruding viscera, and can hence proceed with rapidity. The record of one of our own countrymen in those renal operations made posteriorly should not be overlooked, for his success is so far unparalleled.

Dr. George D. Hamilton, of Columbus, O., has, within the past year, performed successfully five renal operations on patients of different ages—two nephrectomies, two nephrotomies, and one nephropexy.

The operation of nephrotomy is performed by making an oblique incision over where the kidney normally is placed. When the muscular parts are divided, and the loose fat in the way of the kidney is pushed aside, the distended outer capsule, with the pelvis, are seized with the thumb and the fingers and herniated into the wound. After all hemorrhage is controlled and the wound well cleansed, a puncture is made into the hydronephrotic pocket and the urine allowed to run off. Now, if the sac is not adherent, its redundant, flabby, collapsed walls may be gently drawn through the incision, and cut away, when its margins may become sutured to the integuments. By most rigid antisepsis, henceforth, and proper care, septic infection will be prevented and the fistula kept open. Great care must be taken here in making the deep incision, not to mistake the lumbar fascia for the cystic covering and open the peritoneal cavity; or if the parietal peritoneum has taken on adhesions with the bowel, and we divide it, a gush of fæces will besmear everything, greatly complicating and protracting the operation. Accordingly, we must grope about, feeling our way with the greatest caution, and using the scalpel but sparingly, until we are positive that we commit no mistake.

The final and entire removal of the cause of hydronephrosis entails the ablation of the kidney. This is done by incision, similar to the one adopted for drainage. When it is felt and secured, it is decorticated; the vessels secured *en masse*, or separately. After the secretory structure has been removed, the shell is secured in the wound by a few cat-gut sutures. Now the chasm is well packed, and the incision is closed by a granulation process. Encysted, renal pus, is evacuated; its exciting cause sought for, as a calculous or other foreign substance, and the wound treated openly.

Hepatic cysts, whether serous, purulent, or hydated, are not so safely remediable as those of renal origin. The liver having but one common terminal duct, and being a solitary organ, total arrest of function in it must be quickly mortal; hence, though the route to it were of easy access, yet, nevertheless, when the pathological conditions involve the gall-bladder, or the ducts, operative measures must be of little more than temporizing expedients in the majority of cases. From an anatomical standpoint we can understand the difficulties which lie in the way. Unless there have been pus, plastic inflammation, a previous localized peritonitis, we must open the peritoneal cavity to expose the gall-bladder, or the free surface of the liver.

Happily, however, if the distension is either hydatid or serous, it may be drained away in precisely the manner as those heretofore described. Certainly there may be severe leakage through the puncture into the peritoneal cavity, but this will not cause serious constitutional disturbance.

With pus accumulations and cystic formations we must proceed with caution, and divide the operation into two stages, or more, if necessary. To drain away a phlegmon lodged deeply beneath the capsule of Glisson, infection of the peritoneum must be avoided, or all is lost. We accordingly commence by making

an aseptic incision into the abdominal wall, immediately over the most prominent fullness, opening down until the parietal peritoneum is devided, when the gap is stuffed with gauze and covered by a firm bandage. In a few days—usually about three—the packing is removed, when adhesions are found to have formed, and the abscess may be opened and drained without danger of peritoneal infection.

In cholecystotomy, in the absence of recent or ancient adhesions, we practically adopt the same plan. When the gall vent has permanently closed and an effort is made to drain into the intestine, an operation known as cholecystenterostomy is done. I have never performed it, or ever saw one who survived it. Any one familiar with the many adhesions which form in the vicinity of the common bile duct, with the altered indurated, or softened state of the tissues in chronic cystic disease, can readily appreciate the difficulties in the way. Added to this, even though a connection were practicable, the loss of blood, or the laying bare of the parts, is only too frequently followed by mortal collapse.

I would warn against the propriety of ever making an exploratory incision in any case wherein it is proposed to do an operation on the hypatic tissues, as it is liable to be followed by shock, and it exposes the patient to a needless danger. So that when it is proposed to inspect the parts by laying open the visceral-envelopes, we should have everything in readiness to go rapidly through such an operation, as the condition of things may require.

CONCLUSIONS.

From the foregoing it is evident that with the revelations of the microscope, and intelligent study of the histological elements and the pathological changes in serous cysts, a sound knowledge of them has become possible.

By the aid of anæsthesia and germ destroying agents, their treatment has undergone vast changes, and now that sepsis and pain are no more, in dealing with them, few can wholly elude the efforts of the practitioner in his attempts to dislodge them.

My aim here has been to reawaken attention to the importance of the study of this very interesting class of pathological formations.

Of course no attempt has been made in the way of an analytical, or minute study; for any one desirous of pursuing the examination of the subject in all its details, will find numerous treatises on the subject convenient.

My views here expressed are not based on speculation and theory alone, for I have had considerable practical experience in dealing with this class of neoplasmata. We have truly made stupendous progress, but yet all operations involving the abdomen are not without danger. And explorations entail mutilation; hence, conservatism should be the word, and procedures involving much loss of blood should be resorted to only as a *dernier ressort.*

But when the time arrives, however, that we must act, we should proceed only when we have thoroughly qualified ourselves by study, experiment and practice, and we are fortified with a consciousness of a comprehensive knowledge of all the difficulties and accidents which may lie before us. Then, should the case end in disaster, we are easy in mind, and know that failure was attributable to influences beyond our ken to either modify or prevent.

Dr. Eug. B. Dickson, of Chicago, was married to Miss Marion Bronson, October 21.

ON THE NATURE OF THE COAGULATING PROCESS.

By SAMUEL WOLFE, M.D.,
PHILADELPHIA.

In investigating the phenomena of coagulation, we should not forget the position which coagulable substances occupy in the scale of evolution of non-living to living matter, a scale which evidently has many stages in reaching its completion, but has, nevertheless, a perfectly definite limit. In this transition the ultimate limit is that state in which the tissue unit has become endowed with its full capacity for energy, which energy will have its character defined by the position which it has attained. If nerve, cell, or fiber, it will be of one kind; if muscular fiber or secreting cell, of another, or another kind, and so on.

In this transition all the component parts of these units have at one time been constituents of the blood, and as such had most likely already passed the boundary line between living and dead matter. Let us, for a moment, trace the course of food in its conversion into protoplasm. Up to the time when the food materials leave the alimentary canal by passing through its mucus lining, the chemist can imitate all the processes which it has there undergone, in his laboratory. It is true he must derive some of the material with which he proceeds from outside sources. But even though he must borrow pepsin, trypsin, or amylopsin from an animal source, yet he can conduct all his operations without any necessary contact with living matter. But when, in their onward course, these food materials have reached elaborating organs like the liver and the mesenteric glands, and have had the stamp of vitality impressed upon them, he stands powerless to imitate, nor can he, by any formulated chemical laws, explain the subsequent changes. From henceforth, until the limit of development already alluded to is reached, we must, in the present state of our knowledge, be content to call the changes molecular or vital. But while the chemist cannot solve the problem further, the biologist does not stand idly by. He knows that though endowed with life in the normal course of development, matter at this stage manifests no energy. Though evolved at the expense of energy, derived from previously-developed living material, the developing matter is engaged in storing force, not in giving it out; and thus it goes on, until the limit of its organization is reached; until it has become an integral part of the tissue to which it is destined. Now, matter in this developing state is spoken of as in the ana-state. When fully developed, as in the meso-state. With the exception of the red corpuscles, which probably have no destination as such, beyond the functions they fulfil in the blood, no portion[1] of that fluid can be regarded as having reached its meso-state, and, therefore, in its normal course it has as yet evolved no force.

Now let us take matter that has reached the meso-state; that has become an integral part of a tissue, and see what becomes of it. It is not destined to remain idle; natural processes are too economical to permit this. Sooner or later demands will be made for the latent force which it holds to accomplish work. Under some stimulus the pent-up energy must be evoked, and when such stimulus presents itself the complex product under consideration is given

[1] The water, and salts, and products of excretion are not to be regarded. Our concern is with the proteids derived from the food.

over to that fell destroyer, oxygen, which, in the act of seizure, liberates its force with explosive power, and in the combination resulting a more simple product appears—one which is, perhaps, to serve no further use in the economy, and is, consequently, consigned to an agent capable of its removal.

Such explosions, according as the stimulus is weak or powerful, result in either a partial or total loss of the stored up energy. If only partial, repetitions will complete the work of destruction and the consequent liberation of force. Whether complete or incomplete, conditions of living matter in this stage of expenditure and destruction are known as kata-states.

To recapitulate: The constituents of dead food rise in anastatic steps (passing the while through the blood) to the dignity of the mesostatic crisis (having then reached the tissues and representing cells or intercellular substance), and then, under appropriate stimuli, by the agency of oxygen, are either suddenly precipitated, or pass, by more gentle gradations, through the kata-state, and are once again dead matter.

The meso-state is the biological type of perfected protoplasm; it is the sample product of life's laboratory; the state to which all living material, in its developmental stages, tends. But when the machinery becomes disordered or stopped, imperfect, unfinished products appear; yet, though imperfect or unfinished, still endowed with vitality, and, therefore, capable of yielding force; capable of passing through the kata-states. Now, in passing through these kata-states, they yield products which, in the normal order, do not appear. Hence we may assume that when, from any cause, the partially vitalized matters of the blood, which are destined to reach their meso-state only when they have become tissue, are arrested, products and properties will manifest themselves which could not before be found. And of this order are fibrin, fibrinogen, paraglobulin, and fibrin ferment. Oxygen here, too, is doing its work, and stimuli to the progress of the katastatic course are present. The fibrinoginogen, which, during release from the cell that contained it, would probably, had it reached its normal meso-state, have been trypsinogen, inogen, or some other elaborated product, of the many which may be assumed to exist, besides those which have been discovered, in the various types of fully differentiated protoplasm, is here converted into fibrinogen. We need, therefore, no theory to account for the blood remaining liquid while normally circulating in the vessels, if we regard it as owing its powers of coagulation to substances which never appear in it under these circumstances, and which do not appear because its protoplasm has a higher destiny, and because there is here no stimulus to its oxidation; no interference with its progress to its normal meso-state; in short, no katastatic manifestation, and hence no release of vital force. According to this view, the theory of Lister, that the blood has no natural tendency to clot, is more nearly true than that of Brücke, who holds that the tendency is always to coagulation, but that its normal relations exercise restraint, and thus prevent its solidification. The coagulating power of the chyle when past the first series of mesenteric glands; the still greater powers in this direction as the venous current is approached, and their further increase in the blood, together with the coagulability of muscle substance just prior to putrefactive changes, all point in the same direction. In all we may assume that protoplasm has passed into a kata-state, short of its normal meso-state. No less applicable are the results of disease; the disordered functions, and the appearance of abnormal substances, and of morbid construction, which, however wide their divergence from the physiological and histological standards, can yet be distinctly recognized as their perverted congeners.

Society Notes.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting, September 10, 1890.

The Vice-President, JOHN B. ROBERTS, M.D., in the Chair.

A NEW METHOD OF DELIVERING THE FŒTAL HEAD.

DR. BENJAMIN T. SHIMWELL read a paper with the above title.

Nature's manner of delivering the fœtal head has been followed by obstetricians from time immemorial; recognizing the fact that the occiput is born under the symphysis pubis in normal labor. The face and chin stretch the perineal body, then force their way out, requiring an especial amount of care to prevent tearing of this tissue. The extent of injury to the pelvic floor is not properly appreciated; if the superficial tissue of the perineum is safe the attendant congratulates himself on his possible skill; or if aware of deeper injury, feels grateful that no apparent injury is shown to the watchful eyes of the nurse or patient's friends.

Thus do thousands get out of the confinement-bed ruined in health, carrying into the future injuries that must of necessity bring ill results. Various plans have been suggested to support and accommodate the perineal body to the oncoming head.

It is strange how often the anatomical construction of the perineum is overlooked, and considered merely as a space-filler. It is by this that so much injury is done. The gynecologist's specialty lives by these results.

These are the reasons, hastened probably by experience gained in the above manner, that has induced me to write this paper. The theory that will be advanced, backed by my application of it in a great number of cases, is evidently new; if not, it has not come to my knowledge by reading or otherwise. The advantage of this method is the saving of the pelvic floor from injury either superficial or deep. No attempt is made to show expedition, but a modification of the ordinary method of labor changing the direction of the impinging force.

Naegele says that seventy out of every hundred vertex presentations are in the first position, the other thirty are occiput to right and posterior. The remaining positions are exceedingly rare.

When the head presents in the first position the body of the child must not be overlooked. The back of the child must present to the front and left, the chest to the back and right; therefore at right angles with the vertex presentation of the head at the superior strait. The important point in this theory is the rotation of the head to the symphysis pubis. The manner of rotation of the head is mooted. Pajot claims that the shoulders participate in the rotation, but contradicts himself when he furthur says: "That it is above all the shape of the child's head which decides the character of the movement;" also, "That the occiput will, therefore, be carried forward less on

account of the direction of the forces which impel it, than because of the necessity for accommodation of the cephalic surfaces to the pelvic surfaces." All writers admit that after expulsion of the head occurs restitution takes place, that in a case of first position, after the head is delivered, the head turns with its occiput to the left thigh—that is, in the direction that the head presents at the superior strait; this is an untwisting of the neck.

Gerdy claims that this is "an external expression of a movement of the shoulders within the pelvis, by which the biacromial diameter passes from the transverse to the antero-posterior diameter, the head following the internal rotation." The folly of this assertion is on its surface. The head is free, and the neck and body are constricted by the vagina and the uterus, and if rotation does take place, can we overlook the anatomical relation and action of the atlas vertebræ? Would not the weight of the head allow of the rotation internal without its external manifestation?

Penrose (Hirst, vol. i, p. 571) says: "While the head has rotated, the body of the child, still in the cavity of the uterus, has been tightly grasped by the firmly contracting walls of the uretus, and has not participated in the movements of the head; hence the shoulders are still oblique at the superior strait, consequently the neck of the child is twisted." The latter theory, according to my experience is the true one. The fact of the anatomical construction of the cervical vertebræ of the child cannot be overlooked. This arrangement allows of a rotation of one-fourth of its circumference to take place without injury to the spinal cord. Therefore, if Pajot's theory of the accommodation of the cephalic surfaces to the pelvic surfaces, rather than the application of the force, is true, then it can be seen that rotation of the head is possible without the shoulders. Then, again, the head is not free to wobble around the pelvis when it has reached such a condition of flexion, neither is the neck a rigid body depending on the shoulders for its position. If the theory of shoulder rotation is so, then nature's method is superfluous; for why should the biacromial diameter be changed from its oblique position, which is nearer the antero-posterior diameter, to the transverse, then rotate back again beyond its former position to the antero-posterior.

Playfair believes in partial rotation.

Believing, then, that the shoulders still maintain their oblique position through all the stages of the delivery of the head, what occurs when rotation brings the occiput directly antero-posterior? This has been accomplished by the rotation mentioned of the atlas on the axis vertebræ to one-fourth of its circumference; this having occurred, the delivery of the head takes place, then immediately external rotation or restitution occurs, that is, the neck untwists.

The outlet of the female pelvis is four inches antero-posterior and transverse. The antero-posterior is possibly increased a half inch by extension of the coccyx. These measurements are decreased by the soft tissues; this is more marked in the antero-posterior by the rectum and perineal body. As the head in the last act of delivery begins to extend, we have presenting the cervico-frontal diameter, which is four inches; this has to pass through a space that is but four inches, possibly four and a half inches, lessened by the perineal body, which is at this stage excessively stretched and attenuated. As the safety of the perineum is an exceedingly important matter, it occurred to me that this might be accomplished by lessening the size of the impinging body and transferring the extending head into another direction. It is the nose and chin that rupture the pelvic floor, therefore if the direction of this force can be changed to some other point than the junction of the levator ani muscle, it can be easily seen how injury to this muscle can be prevented.

When the labor has reached this stage, I place the woman across the bed on her back, knees well drawn up, then compel her to breathe with the mouth wide open to prevent bearing down. As the head presents in the oblique direction and to reach the antero-posterior diameter it rotates, twisting the neck, the first step in the method is to reëstablish the direction of the first impingement; this is not done until the cervico-frontal diameter is reached; *this must be complete*, then forcing the head into extreme flexion by grasping the presenting occiput by the hand (in non-instrumental labors), I begin my rotation; the first step is to untwist the neck; this accomplished, the head presents cervico-frontal to the left anterior. I then take advantage of the same anatomical construction of the cervical vertebræ that allows of the normal rotation, and rotate one fourth in the opposite direction, that is, to the left. The cervico frontal is then transverse, the neck lying on the labia of the left side, the forehead beginning to engage the soft tissues of the right labia. What is now presenting to the antero-posterior diameter, or, what is more important, to the perineum? The biparietal diameter, which measures three and one half inches, therefore less tension on the perineum. The possibility of delivering the head in the transverse diameter has been questioned. The articulation of the head to the spinal column is wisely arranged; if no other object than birth was intended, it has well served its purpose. The diameters of the extending face are those of a right-angle triangle, the hypothenuse of which is four inches, the perpendicular three inches, the base two and four-fifths inches. The mechanical advantages of this is apparent. If the measurements had been those of a triangle, the impossibility of delivery is easily seen, the head could not be born as long as the perineum existed. The sweep of the extending head would be the same at the chin as at the forehead, and the perineum would be torn in every case and in every succeeding labor; but the measurements are those of a right-angle triangle, and of a necessity the chin must recede when complete extension takes place, so when extension is made in the transverse diameter of the inferior strait the chin does not impinge on the ramus of the ischium.

Having got the head into this position, I begin the last stage of the delivery of the head. The head has been all this time in extreme flexion, then extension is performed, the soft tissues of the labia push aside, and nose follows on forehead, chin on nose; delivery is complete, and the pelvic floor is safe. The head then untwists to its normal position.

Discussion.—Dr. E. E. Montgomery: I think that the members of the Society are greatly indebted to Dr. Shimwell for the graphic presentation of this method of dealing with the delivery of the head and effort to save the perineum. This certainly is a violation of that old principle which has been handed down the ages, that "meddlesome midwifery is bad." When we consider that all progress in obstetrics and every step in advancement has been in violation of this principle, this thought may not be considered an objection to this procedure, which certainly seems to be one which should be serviceable. But, not having

had experience myself, I am unable to say more than these few words in commendation of it.

Dr. J. M. Baldy: It seems to me that the remarks of Dr. Montgomery, in regard to meddlesome midwifery are true as regards pathological processes, but not as regards physiological processes. Certain it is that in almost everything in which we have attempted to interfere with physiological processes, we have found that they have been carried on a great deal better by Nature herself than by any so-called improvement that we have made on her. If Nature had meant that the head should be delivered in the transverse diameter of the outlet, she would have given us some indication of such desire. On the contrary, she has shown us very clearly and distinctly that the head was to be delivered in the antero-posterior diameter. It is probable that the head can be delivered in the transverse diameter, as Dr. Shimwell has pointed out, if all the measurements are of average size; but all of us know perfectly well that it is the exceptional head that we come across, and not the typical head. Many of the heads are large, and the higher we get in the stage of civilization the larger the head. The normal head may go through, but I doubt not that Dr. Shimwell will run across many cases that he will not be able to deliver in the transverse diameter. Unless the head will pass easily, we have here no room for the extension of the outlet. It is a fixed quantity bound by bony walls—the ramus of the ischium on both sides—and there can be no distention. On the contrary, in the natural methods of delivery we have free room for extension taking place through the perineal body and the soft part of the lower part of the pelvis. Now, it may be that there is danger to the levator ani muscles from over-distention, but at the same time I conceive, and it has been my experience, that the danger to these muscles is greater in proportion to the amount of interference we give to the perineum. In other words, we have here a hard body starting from a given point and progressing at a certain angle to a certain point at which it meets a plane of resistance, that plane of resistance being the soft parts of the pelvic floor, and, if you will, principally the levator ani muscles. There is a well-known physical law, that any body moving in a given direction and meeting with an obstacle, will be deflected at a certain angle. We have this occurring in delivery of the head. The head comes down and meets a resistance, which, although not a fixed resistance, is sufficient to cause deflection in the line of least resistance. This line of least resistance is the opening of the vulva. If resistance is given to the head at that point, the head is prevented from bulging through the vulvar orifice, and the *vis a tergo* being still active, must be spent at some place, and that place is at the point of contact of the head with the pelvic floor. Taking the head, which is bulging the perineum and presenting at the vulva, we hold it back by pressure on the perineum, or by some other method; then we are going to have the greater part of the *vis a tergo* exerted at this one point. These soft tissues of the pelvic floor are capable of yielding to a certain point, and, when they come to that point, they are going to give, and there will be a tear of the levator ani muscles and the other tissues involved. This is where, I believe, the vast majority of tears of the perineum come in. All teachers teach that the head should be held back in some way or other, so that the vulvar orifice is not allowed to expand and the head protrude, as Nature intended; and by this misapplied force we bring about the accident we are trying to avoid. I have found in the cases in which I allowed Nature to take her course almost entirely, keeping the fingers from the head and perineum, except to make slight pressure and lift the head up against the pubic arch, that they have done better and I have had fewer tears, and those that have taken place have been of a minor degree as compared with those where I tried to prevent injury by supporting the perineum. Any support of the perineum whatever is pernicious. I believe that all the teachers and all the books are at fault in that respect. Nature did not mean to have the head held back and have the whole force spent on one part, when we have the elasticity of all the soft parts well anchored, so as to yield and to give room for the head to pass. Supporting the perineum prevents the proper stretching of these tissues, and prevents any good they may do in bulging the perineum and forcing the vulvar orifice open.

Dr. Shimwell: I am exceedingly sorry that some of my friends who have used this method successfully have not spoken. Dr. Baldy has raised the objection that a large head could not be born transversely, but the same objection applies to the antero-position as well. He overlooks the fact demonstrated by the mathematical figure, that we gain, as the chin is delivered, a fraction over one and a quarter inches. The head is born without impinging on the soft tissues of the pelvis.

I have tried this method successfully for a year and a half, both in primipara and in multipara. I have used it both in cases terminated without instruments and in those where the forceps have been required on account of loss of tone or from malformation on the part of the head or of the pelvic outlet.

In regard to Nature—Nature is not always a good worker. If so, why should we have a disproportion between the head and the pelvis? The outlet should be made equal to the head. With regard to the increase in the size of the head with advancing civilization, I know that; but is the pelvis unchanged? Is it not rather lessened? Has it not changed its size and shape?

The points advanced are, I think, no argument against the method. It is a safe method; it is an easy method; and the delivery is accomplished with perfect safety to the child and to the mother.

Stated Meeting, September 24, 1890.

Dr. Charles B. Penrose read a paper on

THE TREATMENT OF HEMORRHOIDS BY EXCISION.

My object in presenting this paper is to urge the more general use of Whitehead's operation of excision in the treatment of certain cases of hemorrhoids.

In 1887, Mr. Whitehead, of Manchester, reported[1] three hundred consecutive cases of hemorrhoids which had been successfully treated by the method of excision and suture. His operation is performed in the following manner:

1. The patient is placed on a table in the lithotomy position, with the hips well elevated.

2. The anal sphincters are then thoroughly paralyzed by digital stretching.

3. The mucous membrane of the rectum is divided at its junction with the skin around the entire circumference of the bowel.

4. The mucous membrane, with the attached hemorrhoids, is dissected from the submucous tissue, and the cuff or cylinder thus formed is dragged below the skin margin.

[1] British Medical Journal, February 6, 1887.

5. The mucous membrane above the hemorrhoids is then divided transversely, thus removing the pile-bearing area, and the operation is completed by suturing the upper margin of the severed membrane to the free margin of the skin.

The advantages claimed by Whitehead for this method of treatment are based on pathological and surgical reasons. He considers that the internal hemorrhoids, which are generally regarded as localized distinct tumors, amenable to individual treatment, are, as a matter of fact, component parts of a diseased condition of the entire plexus of veins surrounding the lower rectum, each venous radicle being similarly, if not equally, affected by an initial cause, constitutional or mechanical.

The operation of excision is the only one which removes this whole diseased area. It is, therefore, demanded for this pathological reason. It is in addition surgically more perfect than any other method of treatment, because it provides for the readjustment of healthy tissues with the object of securing primary union and rapid convalescence. It does not leave the sluggish ulcer of the cautery, nor is it attended with the pain and slow convalescence of the ligature.

My experience with this operation is limited to ten selected cases. Only those cases were selected in which there existed a complete circle of hemorrhoidal tumors surrounding the lower margin of the rectum, since for such cases Whitehead's treatment of excision seems to be most particularly adapted.

The details of the operation are simple and easy to execute. In dividing the mucous membrane from the skin it is best to begin at the posterior margin of the anus in order to prevent the blood from obscuring the field of operation. No skin should be sacrificed, even though there appear to be redundant tags around the margin of the anus. The skin always retracts somewhat and the tags shrivel and disappear before firm union has taken place. Failure to observe this rule may result in subsequent serious trouble. Kelsey[1] reports the case of a woman who had been subjected to a so-called Whitehead operation and who presented herself to him with a complete circle of excoriated mucous membrane, extending for one inch outside the anus. It is probable that in this case the operator had sacrificed too much skin.

On the other hand, the upper section of the mucous membrane should be made in the same horizontal plane throughout, in order to prevent subsequent ectropion ani.

The dissection of the mucous membrane from the underlying tissues is exceedingly easy, except in some cases of old—or long standing—piles. The attachment of the submucous tissue is very loose, and separation can be effected with the finger or with the handle of the scalpel. It is not always possible to dissect the piles completely from the underlying structures, as they may involve not only the mucous but the submucous tissues, and in such cases it is necessary to cut partly through the piles until the healthy mucous membrane above is reached. Repeated attacks of inflammation of course render closer the adhesion of the pile area to the underlying structures. In one of my own cases, where the piles had existed for forty years, and had frequently been inflamed, the adhesions to the two sphincters were so close that a few muscular fibers were cut away during the removal.

The amount of blood lost during the operation is surprisingly small. Whitehead states that he has often operated on severe cases and not found it necessary to twist a single vessel. In five of my cases no hæmostasis was necessary. Bleeding is avoided by adhering closely to the mucous membrane in the dissection, as the larger arterioles lie beneath the submucous tissue. The arterial bleeding occurs in those cases of old piles which have been subjected to previous operation or to attacks of inflammation, and in which dilatation of the rectal and anal arteries has taken place secondary to dilatation of the hemorrhoidal veins. The bleeding from the upper divided edge of the mucous membrane can be reduced to a minimum by following Whitehead's method of inserting the sutures as each portion is divided, or by adopting Marcy's plan of introducing a circle of shoemaker stitches of catgut around the mucous membrane above the piles before cutting the mass away.

Whitehead's advice is in all cases to remove the complete cylinder of mucous membrane, whether or not the whole of this area appears to be diseased. He gives this advice for the reason which I have already stated, that he considers the individual piles as but part of a general pathological condition, involving all the lower hemorrhoidal veins of the rectum.

Whether we accept this pathological view or not, it is best to follow this plan, and to make a complete circular division of the mucous membrane, as by this method the best surgical results are obtained, and ectropion ani prevented. I have seen a case in which only one-half of the circumference of the mucous membrane of the rectum was removed, and a few hours after the operation an œdematous swelling formed in the other half, which has now resulted in a hemorrhoidal tumor almost as annoying as the one for which the operation was performed.

In attaching the mucous membrane to the skin, Whitehead uses the interrupted silk suture. He never removes the sutures, but allows them to ulcerate through—a process which is very easily accomplished. In my own cases I have used the continuous catgut suture.

The treatment of these cases after operation is very simple. It is rarely necessary to use opium or the catheter. An opium and belladonna suppository introduced immediately after the operation, is, in most cases, all that is required. The bowels can be moved in from twenty-four hours to four days, and with very little pain. Absence of pain after Whitehead's operation is due to the thorough paralysis of the sphincters, and to the fact that no source of irritation is left beyond that of a clean linear incision, united without tension and without strangulation of tissue.

A glance at the histories of my own cases shows that they were all cases of aggravated hemorrhoids, in which the piles covered the whole circumference of the lower part of the rectum. In all the cases the disease had existed for many years, and two had been subjected to previous operation by the ligature.

In only one case was there anything like free bleeding during the operation.

In all the cases a suppository of one-half grain of extract of opium and one-half grain of extract of belladonna was introduced immediately after the operation, and this was all the opium required except in three cases, in which one-sixth grain of morphine was subsequently administered.

The catheter was used in only three cases, and in these for a period not longer than twenty-four hours. The length of time that the case is confined to bed depends to a great degree upon the social standing and the disposition of the patient. In my cases it varied from two to ten days. Every case should be

[1] New York Medical Journal, October 5, 1889.

able to sit up in four or five days, and to resume work in ten days or two weeks.

The bowels were opened without pain in from twenty-four hours to four days after operation.

No complications of any kind followed these operations. Union takes place quickly, and generally one dressing taken off when the bowels are moved, is all that is necessary. In no case was there incontinence from paralysis of the sphincters, or any tendency to stricture, from contraction of the scar.

Since the publication of Whitehead's paper his method of operating has been tested by many surgeons. The operation cannot be criticised on surgical grounds, as it is certainly the most perfect plan of treatment, surgically speaking, which has been proposed.

The immediate removal of the tumors, the coaptation of healthy tissues, and primary union, are substituted for slow strangulation by the ligature, or removal by the cautery and healing by granulation.

The applicability, or the necessity, of this operation in all cases of hemorrhoids, is, however, open to criticism. If we accept Whitehead's views in regard to the pathology of piles, and believe that the whole venous plexus surrounding the anus and the lower end of the rectum, is in a pathological condition in every case of hemorrhoids, even though there may be present only one or two isolated tumors; then, of course, the complete removal of this area is indicated.

But that this view is not true is proved by the thousands of cases which have been permanently cured by the ligature and the clamp. The method, however, is indicated in all cases of aggravated hemorrhoids where the vascular tumors cover the whole or the greater part of the circumference of the bowel. In such cases the operation presents no great difficulties. Statistics show that it is at least as safe as operation by the ligature or the clamp, and it is certainly followed by a more rapid convalescence, and much less pain and discomfort.

Discussion.—Dr. W. D. Green: I have had the pleasure of witnessing only a small number of Whitehead's operations, but I fully agree, and I think that those who have tried the operation will fully agree with Dr. Penrose, that the method of excising through the whole circumference of the bowel, the pile-bearing mucous membrane, and drawing down upon the upper segment, and then attaching this to the lower segment without including the skin, has the advantages, first, of removing all possibility of return of the trouble; and, secondly, as Dr. Penrose has stated, in making a clear, clean, linear incision around the circumference of the bowel. Nearly all of us have seen the immense amount of suffering which the older operations by means of the clamp and ligatures, and even the cautery, have entailed. In the cases of the new operation which I have seen, recovery has been rapid and complete. In one case, that of a woman well advanced in life, upon the day after operation, when I got to the house, I found her comfortably seated in a rocking-chair. The physician who had had the case in charge before the operation had given her freely of some medicine to open the bowels, and on the morning after the operation, without any pain and without any tenesmus, she had a large, well formed motion. In the old method, in which for days the physician was called upon to administer opium, either by suppository or hypoder mically, in large amounts, and in which the patient and the physician both looked forward with dread to the time—five, six, or ten days after the operation—when the bowels were to be opened, is, by this method, entirely obviated.

I have seen, in the few cases which I have watched, no pocketing or trouble about the line of incision. The two freshly-cut surfaces unite very quickly—very much more so, it seems to me, than in mucous surfaces elsewhere. Even when the bowels were moved within twenty-four or thirty-six hours, I was surprised to find that there was no trouble.

It strikes me that the continued suture has advantages over the interrupted. Being introduced and made fast at one point, and then carried out and in around the circumference of the bowel, if catgut be used at the time when union usually occurs, the suture is probably dissolved, and passes away without any trouble; or, if silk be used, by simply introducing the scissors and cutting close to the knot, and giving an easy pull, the whole suture is removed without any pain or bleeding.

I must confess that the operation presents to me by far the best method of removing the pile-bearing membrane when it exists and involves one-half, or more than one-half, the membrane around the circumference of the bowel.

The Polyclinic.

MEDICO-CHIRURGICAL COLLEGE.

CHRONIC OVARITIS.

ASIDE from the reflex physical derangements, both local and general, attending chronic ovaritis, there is usually present a greater degree of emotional disturbance than is found in disease of any of the female genital organs. This is not strange, since it is admitted that the ovaries give to woman, in a great measure, all of her characteristics of mind.

When the inflammatory conditions are unfavorable for recovery, the emotional derangement is often progressive. In the early treatment counter-irritants and alteratives often give good results, especially the administration of small doses of the bichloride of mercury three times a day. But, should the tissues of the organ become destroyed and suppuration take place, removal will alone give relief.—*Godfrey.*

For Acute Eczema and Irritable Conditions of the Skin.—

℞.—Cocainæ hydrochlorat. . . . . gr. iij.
Atropinæ sulphat. . . . . gr. j.
Morphinæ sulphat. . . . . gr. ij.
Ung. acidi carbolici . . . . . ℥j.—M.

—Shoemaker.

For Animal Parasites.—

℞.—Beta-naphtholis . . . . . gr. xx.
Ung. hydrargyri ammon . . . . . ℥j.—M.

—Shoemaker.

For Furuncular Affections.—

℞.—Mentholis . . . . . gr. x.
Cocainæ hydrochlorat. . . . . gr. v.
Ung. resinæ . . . . . ℥j.—M.

—Shoemaker.

For Painful Skin Diseases.—

℞.—Salolis . . . . . gr. x.
Plumbi carbonat. . . . . ℥ss.
Ung. mentholis . . . . . ℥ss.—M.

Menthol ointment contains five to fifteen grains of menthol to the ounce.—Shoemaker.

The Times and Register

A Weekly Journal of Medicine and Surgery.

New York and Philadelphia, Nov. 1, 1890.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

THE TIMES AND REGISTER,
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PRIORITY IN TUBERCULOSIS INVESTIGATIONS.

IN an editorial upon this subject of inoculation for tuberculosis, the *Medical Age* reviews Koch's statement at the Tenth International Medical Congress, and quotes Dr. Dixon's proposition as published last October in the *Medical News*. The writer then proceeds to say :

> Commenting on this THE TIMES AND REGISTER assumes that Dr. Dixon's paper first suggested to Koch as well as Grancher the line upon which their researches have been made. This is hardly probable, however, since the paper of the latter was deposited with the Academy of Medicine in November, or in less than a month after Dr. Dixon's announcement, which would afford no opportunity for positive investigation and experimentation ; while as for Koch, as already stated, this is mere assumption based upon no tangible evidence.

We are under obligations to the *Age* for having contributed this weighty evidence in favor of Dixon's claim. The matter stands thus : Last October Dr. Dixon published his paper in the *News*. Copies were at once sent by Dixon to Koch, and to Pasteur, at whose laboratory Dr. Grancher was then engaged ; and the very next month Grancher deposits with the Academy of Medicine his paper, which follows the line of investigation marked out by Dixon. That Grancher was fully capable of appreciating the importance of Dixon's work no one can deny. That a paper bearing directly upon the line of work that was being done at Pasteur's laboratory, and advancing so striking a theory as that of inoculation for tuberculosis, being also a further application of a principle originating with Pasteur himself, should be totally overlooked by that shrewd man and his quick-witted associates, is not a very probable assumption. But that one among them should at once take steps to secure for himself the credit of originating the idea of a foreigner, in a country where priority is so highly valued as it is in France, is not an assumption devoid of reasonability or without precedent.

THE RENAISSANCE IN THERAPEUTICS.

UNDER this title, Kent Spender contributes an article to the *Practitioner*, from which we extract the following :

(1) The analgesics are indicated for pain so acute and sudden as to be dangerous, and relief at any cost is demanded. For less urgent pain opium is the remedy ; also, in incipient inflammations, as in the eye. (2) In rising inflammations, with pain as a subordinate factor, he recommends antimony ; giving mastitis and pityriasis rubra as examples. (3) There are diversities in the action of some medicines, as given in large or in small doses. (4) Drugs with similar action increase each other's efficacy when given together. (5) A mark of the Renaissance is the readiness to drop useless lumber ; phosphorus has gone down since 1874, while salicine is in the ascendant. (6) Goldsmith said that "cautious stupidity is always in the right ;" but timid dosage causes many failures. So chloral is the supreme, sole remedy in delirium tremens ; arsenic is given to children in the same doses as to adults, and belladonna in even larger doses.

We fancy that throughout the article the reader will note the underlying conviction that the Renaissance is best exemplified by the practice of Dr. Kent Spender. Few will agree with all his dicta, and some may be unkind enough to suggest that in unloading lumber he might have included tartar emetic. On this side of the ocean we manage to treat mammary inflammations very satisfactorily without plaguing the woman with antimony when she is enfeebled with childbirth. And while chloral may be the best weapon against delirium tremens in Dr. Spender's armory, we would be very sorry to think the profession had no better resource than drugging with unlimited chloral. He who has learned the value of food, coca, capsicum, and baths will scarcely accept Dr. Spender's valuation of chloral.

Annotations.

BERBERIS AQUIFOLIUM.

THE special indications demanding berberis may be summarized as follows : Long continued gastric and intestinal indigestion, not very severe, but occasionally lighted up by some indiscretion of diet or exposure to inclement weather, or overexertion. The patient has become thin, but not emaciated, and does not suffer much inconvenience from constipation, although there may be slight rectal irritation from hemorrhoids. If the patient be a woman all these symptoms will be more distinct than if a man, and in addition there may be some uterine trouble. This complication is very common about the climacteric, but it in nowise forms a contra-indication to the use of the drug.

A favorite formula with me is the following :

℞.—Fluid extract of berberis aquifolium,
Glycerine . . . . . āā ½ ounce.
Tincture of prickly ash with Jamaica rum . . . . . 4 ounces.
Dose.—A tablespoonful in water after meals.

—Aulde, *Med. News.*

THE MEDICO-CHIRURGICAL HOSPITAL.

THREE weeks ago this hospital appealed to the public for funds to complete the enlargement of its building and refurnish. The sum required is $25,000, and already over $11,000 has been subscribed. The Managers state that their requests have been responded to with an alacrity and a kindly feeling which is very gratifying. The strength of this institution lies in the good work done in its wards; the best friends being those who have entered as patients. This is a pretty good world, and there are few hearts that do not sympathize with the true spirit of charity, which does not limit its benefactions to those objects that offer the possibility of return, but reaches out a helping hand to the poor, the lowly, those who have neither money, nor friends, nor any other claim but the greatness of their need. Philadelphia is full of noble charities; but among them there is none nobler than this hospital. It appears to have the power of attracting good women to its aid, and we doubt if the Board of Managers and those who have assisted them can be equaled in the million residents of Philadelphia for energy, ability, and kindly interest in their charges. It may interest those who attended the brilliant fair given last winter at the Academy of Music by this organization, to know that that effort will be probably eclipsed by a still greater during the coming winter.

THE CATHA EDULIS.

IN that part of Africa which lies between the fifteenth degree of north and the thirtieth degree of south latitude, but more particularly in Arabia and Abyssinia, there grows in abundance a small shrub with hard lanceolated leaves, olive-green in color, harsh and astringent in taste, of which some samples have been acclimatized in the gardens on the coast of the Mediterranean and in the experimental garden in Algiers, the capital of Algeria. To this shrub, which the Arabs call Kat or Qat, Forskall, a Swedish botanist who discovered it in the last century, gave the scientific name of Catha Edulis. It has for ages past been used in Arabia and Abyssinia as a stimulant and as a temporary substitute for food, and now for some months it has been utilized in therapeutics as a succedaneum for coffee, mate, and kola. Its physiological effects have been ascertained by several experiments. A seamstress, for example, who took a small dose of extract of Catha, was able easily to work three times as long as usual without intermission; a medical student who chewed a handful of Catha leaves remained awake all night; and another young student, who was on the point of breaking down, used Catha for four days and found his mental and physical strength restored. The therapeutic properties of this plant will no doubt be made the subject of scientific study.—Cartaz, in *La Nature*.

UP to the time of writing the situation at Jefferson remains unsettled. Professor Bartholow declined to take a vacation, and the Trustees have declared his chair vacant, and will elect his successor on Monday. While Dr. Hare is most frequently spoken of as the chosen successor, many urge Drs. S. Solis-Cohen, T. J. Mays, Frank Woodbury; and Dr. Potter, of San Francisco, is also mentioned prominently.

The action of the students, though prompted by the generous feeling of affection to their old instructor, was ill-advised in the extreme. Nobody has the interests of Jefferson at heart more than the Faculty and Trustees, and they may certainly be credited with having very good reasons for displacing as strong a man as Dr. Bartholow. It is not always best for the interests of either party that these reasons should be made public; and serious injury might have resulted had the students persisted in their action. As a graduate and well-wisher of Jefferson we trust that the result will be favorable to her best interests.

Of the gentlemen named, Dr. Cohen would be, perhaps, best fitted to deal with an unruly class. He has won an honorable place among Philadelphia physicians, and displayed talent as a teacher.

Dr. Woodbury would bring to the chair a ripe professional scholarship, with considerable practical experience as a teacher. As a clinician he has no superior.

Dr. Potter has made a very favorable impression with his book on therapeutics, which has been adopted as a text-book in many colleges.

Letters to the Editor.

IN the list of the Medical College Announcements (for 1890 and 1891), published in THE TIMES AND REGISTER, I do not see the name of the Trinity University, of Bennington, Vermont, (department of Medicine and Surgery).

Question: Has this university discontinued its teachings? or has it ever had an existence, as I am taught to believe it has? Will you please (if you can) answer these questions? READER.

SALT LAKE CITY, UTAH.

[The institution named is registered as fraudulent in the last report of the Illinois State Board of Health. —ED. T. & R.]

Book Notices.

ESSENTIALS OF THE DISEASES OF CHILDREN. By WILLIAM M. POWELL, M.D. Philadelphia: W. B. Saunders 913 Walnut street, 1890. Cloth, pp. 222. Price, $1.00.

This is somewhat better in all respects than Morris' book. The author has felt it a duty to follow Starr closely. The numerous prescriptions would have been improved by following the pharmacopœia more closely. Where is the authority for capitalizing adjectives derived from common nouns?

Pamphlets.

Diagnosis and Operative Treatment of Gunshot Wounds of the Stomach and Intestines. By N. Senn, M D., Ph.D., of Milwaukee, Wis. Read by invitation in the Surgical Section of the Tenth International Medical Congress, August 8, 1890.

Vaginal Tamponage, an Improved and Simplified Process for Rendering Continuous Support to the Organs composing the Female Generative Tract. By Charles C. Fredigké, M.D. With four zinc etchings. Chicago: Press of R. R. McCabe & Co., 1890.

De la Laryngite Tuberculeuse, a Forme Scléreuse et Végétante. Par MM. le Dr. Gouguenheim et J. Glover. Extrait des *Annales des Maladies de l'Oreille et du Larynx*. Paris: G. Masson, Éditeur.

Proceedings of the National Conference of State Boards of Health, at the Seventh Annual Meeting, held at Nashville, Tenn., May 19–20, 1890. Published for the State Board of Health of Pennsylvania. Columbus, Ohio: Myers Bros., Printers and Publishers, 1890.

The Medical Digest.

FOR NEURALGIA.—Bidwell (*K. C. Med. Index*) speaks highly of the combination of salol and phenacetine, 2½ gr. each.

CAUSTIC FOR NÆVI, TUBERCULAR GROWTHS, ETC.—

℞.—Sodii ethylati . . . . . ʒj.
Alcohol . . . . . ʒj.
M.—S. Apply with care.

—Richardson.

FOR TYPHOID FEVER.—

℞.—Cupri arsenitis . . . . . gr. $\frac{6}{100}$.
Morphinæ sulph. . . . . gr. ss.
Glycerini,
Aquæ dest. . . . . āā ʒij.
M.—S. A teaspoonful every hour.

—Moore, *N. W. Lancet.*

DIURETIC AND DRASTIC.—

℞.—Pulv. scillæ,
Pulv. scammonii,
Pulv. digitalis . . . . . āā ʒj.
M.—et in pil. No. lx, divide.

—Laramee, *L'Union Méd. du Canada.*

CHLORALAMID may be given as follows:

℞.—Chloralamid . . . . . gr. xiv.
Acid. hydrochlorici dil. . . . . gtt. vj.
Syr. rubi idæi . . . . . ʒij.
Aquæ . . . . . ad ʒij.
M.—S. To be taken in one or two doses.

—Steele, *K. C. Med. Index.*

FOR ECZEMA AND ALL SQUAMOUS AND VESICULAR ERUPTIONS.—

℞.—Plumbi oxid. vel carb. . . . . gr. xx.
Hydrargyri oxid. rub. . . . . gr. x.
Ol. palmæ purif.,
Adipis benzoati . . . . . āā ʒss.
Creasoti . . . . . ♏vj.—M.

—Startin.

COMPOUND BISMUTH LOTION.—

℞.—Bismuth subnit.,
Zinci oxid.,
Tinct. camphoræ,
Glycerini . . . . . āā ʒss.
Aquæ . . . . . q. s., ad ℈j.
M.—S. For local use, in irritable, vesicular, and sebaceous skin affections.

—Startin.

DIURETIC.—

℞.—Tinct. digitalis . . . . . ʒijss.
Potassii iodid. . . . . ʒij.
Tinct. opii comp. . . . . ʒss.
Syr. pruni Virg. . . . . ʒij.
Syr. scillæ . . . . . ʒj.
M.—S. A teaspoonful every four hours.

—Laramee, *L'Union Méd. du Canada.*

FERRUGINOUS PILLS.—

℞.—Ext. cinchonæ,
Ext. gentianæ,
Ext. rhei,
Ferri et potassæ tart. . . . . āā gr. lxxv.
Ext. nucis vomicæ . . . . . gr. vijss.
Ol. anisi . . . . . gtt. v.
Glycerini, q. s.
M.—et in pil. No. c, divide.
S. Two pills before each meal.

—Huchard, *Le Bull. Méd.*

MIXTURE FOR FETID EXHALATION FROM THE MOUTH.—

℞.—Bicarb. of soda,
Saccharine . . . . . āā ʒj.
Salicylic acid . . . . . ʒj.
Proof spirit . . . . . ʒvj.
A teaspoonful in a glass of water to rinse the mouth.

—*Medical Press.*

OINTMENT FOR FISSURES AND ECZEMA OF THE NARES.—

℞.—White precipitate,
Boric acid . . . . . āā ʒj.
Oxide of zinc . . . . . ʒj.
Acetate of lead . . . . . grs. v.
Vaseline . . . . . ʒj.
F.S.A.

—*Medical Press.*

OINTMENT FOR PRURIGO.—

℞.—Resorcine . . . . . ʒjs.
Sulphur . . . . . ʒj.
Phenic acid,
Salicylic acid . . . . . āā 10 grs.
Chloral . . . . . ʒj.
Vaseline . . . . . ℥iss.
F.S.A.

—*Medical Press.*

FOR GASTRIC CANCER.—

1. ℞.—Bismuth salicylat.,
Magnesiæ (English),
Sodii bicarb. . . . . āā ʒijss.
M.—Divide in thirty cachets.

2. ℞.—Bismuth salicylat.,
Beta-naphthol,
Carbonis . . . . . āā ʒijss.
M.—Divide in thirty cachets.

3. ℞.—Bismuth salicylat.,
Salolis,
Sodii bicarb. . . . . āā ʒijss.
M.—Divide in thirty cachets.

These are to be taken, a cachet before each meal, to secure intestinal antisepsis.

—Dujardin-Beaumetz, *Le Bull. Méd.*

FOR HAY FEVER.—

℞.—Zinci valerianat . . . . . gr. j.
Pil. asafœtidæ comp. . . . . gr. ij.
M.—S. One or two pills to be taken two or three times daily. (For neurasthenia.)

—Sir Morell Mackenzie.

℞.—Acid. chromici cryst. . . . . gr. $\frac{1}{16}$—$\frac{1}{4}$.
Aquæ destillat. . . . . ʒj.
M.—S. To be sprayed into the nose (diluted with equal quantity of boiling water) for two or three minutes, several times daily. (For paroxysmal sneezing and rhinorrhœa.)

—Macdonald.

℞.—Glycerini acid. carbolici . . . . . ʒj.
Quininæ hydrochlor. . . . . ʒj.
M.—S. Dissolve by heat, and add $\frac{1}{2000}$ part of bichloride mercury. Apply cautiously to nasal mucosa every two to three days.

—Sir Andrew Clark.

PILOCARPINE IN RENAL AND CARDIAC ŒDEMA.—Two medical men of high standing warmly recommend injections of pilocarpine in œdema of renal or cardiac origin, and if prolonged they cause it to disappear with absolute certainty. The injections are given once a day at the dose of ¼ of a gr. of the hydrochlorate of pilocarpine. In a few days it can be raised to ½ gr., and finally 1 gr. can be given. At the beginning the injections produce symptoms of poisoning resembling those of tobacco (nausea, vomit-

ing, diarrhœa, cold perspiration), but these symptoms are never grave, and soon cease. The patients get so accustomed to the pilocarpine that they complain when it is suspended suddenly of headache and malaise. Provided that the doses are increased gradually the treatment can be applied without fear, even in cases of valvular disease, and in spite of vomiting and hæmoptisis.—*Medical Press.*

Application of Mineral Acids in Necrosis.—According to Dr. Ole Bull, who writes in a Norwegian medical journal, the suggestion of an English surgeon to employ sulphuric acid containing a certain amount of sulphurous acid to loosen necrosed portions of bone is not altogether good, inasmuch as sulphuric acid forms sulphate of calcium, which is insoluble and opaque, and so prevents the acid from acting on the deeper layers, besides obstructing the view. He finds, however, that some of the other mineral acids act very much more satisfactorily. After a good many trials he has come to the conclusion that the most suitable application is a 4 per cent. solution of hydrochloric acid, which he has used very successfully for necrosis and caries of the temporal bone. This forms a soluble salt of lime, and is well tolerated by the external meatus, and even by the cavity of the tympanum. In cases where polypi had been removed by means of galvano-cautery or by chromic acid, treatment of the stump by hydrochloric acid was very successful, but it was necessary to continue the applications for about three months.—*Lancet.*

The Succinimide of Mercury in Syphilis.—Dr. Selenew, who has made comparative trials of the advantages of several mercurial salts for hypodermic use in the skin and syphilitic clinic at Kieff, which is under the direction of Prof. Stukovenkow, has recently obtained considerable success by using the succinimide, a salt which was originally recommended for the purpose by Dr. Vollert and was used in Prof. Wolff's syphilitic clinic in Strassburg two years ago in doses of about one-sixth of a grain. Dr. Selenew employed larger doses (one-quarter to one-third of a grain) in a solution of the strength of 1 per cent. The injections, of which nearly a thousand were given altogether, were usually made into the cellular tissue of the back or buttocks. In some cases a daily injection for twenty-four days sufficed to cause all the syphilitic appearances to disappear; in most of the cases the treatment had to be carried on for about a month, and in one case for forty days. Thirty-three patients in all were treated. In six the gums became affected. In only one was the pain at the seat of puncture at all severe; usually there was no pain at all. In one case there was abdominal pain and diarrhœa, which lasted for five days. Out of twenty-four cases of primary syphilis, which remained under observation for seven months, only three developed secondary symptoms, and one of these was that of a man addicted to drink. Comparing the results in preventing secondary symptoms with those obtained by the injection of other mercurial preparations, the succinimide appears to be about as efficacious as the yellow oxide, and very much more so than the alaninate, the salicylate, or the so-called gray oil. Dr. Selenew looks upon the succinimide as a mild and valuable preparation, which may be very useful in primary and secondary cases of no great severity, especially in women and children, because of its slight tendency to cause local irritation. In severe cases a more active preparation, as the yellow oxide, the perchloride, the salicylate, or the oxybenzoate, should be preferred.—*Lancet.*

Anodyne Effects of Electric Light.—Stein, of Moscow, records (*Meditzinskoïe Obozrenië*) a series of fourteen cases of various painful affections in which he used electric light as an anodyne, with almost "magical" results. The apparatus (devised by himself) used for the purpose consisted of a small-sized (three or four volts) incandescent electric lamp, furnished with a suitable handle and a funnel-shaped reflector, varying from 3.5 to 6 centimetres in length and from 2 to 3 in the longest diameter, the lamp being fixed within the reflector. In cases where the head or neck was affected, the illumination (the reflector being applied directly to the painful area) lasted from ten to fifteen seconds; in other regions of the body from one to five minutes, or even longer, until the patient began to complain of intense heat. The anodyne effects are said to have been invariably most striking. A woman, suffering from very obstinate intercostal neuralgia, after a single sitting (a series of illuminations, each of a few seconds' duration) was completely and permanently freed from pain. The same result was obtained in another patient suffering from intense rheumatic pains about the shoulder. In a woman, aged fifty, suffering from agonizing lumbago, four sittings of five minutes' duration twice a day proved equally successful. In another patient, a nervous woman who had had excruciating pain about the right foot and ankle causing lameness, two illuminations of five minutes' duration caused complete cessation of the symptoms. In a patient suffering from pulmonary and laryngeal tuberculosis, and most troublesome, almost incessant, cough, in whom even morphine in the daily dose of one grain had afforded but trifling relief, from ten to fifteenth seconds' illumination of the larynx and both sides of the neck externally, repeated every other day, reduced the paroxysms of coughing to two or three in the twenty-four hours.—*Brit. Med. Jour.*

Successful Suture of Tendons Eleven Weeks After the Injury.—John L——, aged forty, came to me on December 13, 1889, with the following history. Eight weeks previously, while engaged in trimming rose trees, the knife he was using slipped and inflicted a transverse wound on the outer side of the left wrist, one inch above the thumb. The wound was allowed to heal by granulation, no advice being obtained until it was found that the thumb could not be moved voluntarily, at which time the patient was comforted by being told that "some nerves were cut across, and that voluntary movement would return in the course of time." On December 13, 1889, the left hand was of little use, as the thumb was flexed into the palm and adducted, so that the patient was unable to pick up a book or to hold anything unless the thumb was first lifted up and the article to be held placed between it and the hand. Any variety of passive movement was possible, but the only active movement which remained was extension of the terminal phalanx, the thumb being rendered motionless owing to the unopposed action of the flexor longus pollicis, adductor pollicis, and the flexor brevis pollicis. At the base of the first metacarpal bone, and one inch above it, there was a transverse scar an inch long, on the outer surface of the left wrist. Just below this the distal ends of the tendons of extensor primi internodii pollicis and extensor ossis metacarpi pollicis could be easily felt, but the position of the proximal ends could only be indistinctly made out five inches off on the back of the fore-arm. On January 8, 1890, eleven weeks after the accident, the patient being under chloroform and an Esmarch's bandage

being on the arm, an incision was made from the site of the distal ends of the tendons to the supposed position of the proximal ends. The distal ends were found at once, and it was then discovered that the synovial sheath was blocked at the site of the scar for three quarters of an inch, by a mass of connective tissue. This was cut through and the sheath slit up until the proximal ends of the tendons were found. All four ends were smoothly rounded off, and no adhesions had been formed. Unfortunately, the ends of the tendons were five inches apart, and it was found to be impossible to bring them nearer together than three-quarters of an inch. However, the ends were cut off, and they were then stitched together with two catgut sutures each. One or two small vessels were tied, and the wound was closed by silk sutures without any drainage, the tourniquet not being removed until a wool dressing had been firmly applied, after which a special splint was put on in such a way as to keep the thumb fully extended. The wound healed by first intention. On Friday, June 27, about six months after the operation, the patient was shown at a meeting of the Worcestershire and Herefordshire branch of the British Medical Association, having all the active and passive movement of the thumb perfect.

—Gostling, in *Lancet.*

A NEW OPERATION FOR STRICTURE OF THE RECTUM.—Mrs. B., aged thirty-two, giving history of syphilis, with a subsequent rectal stricture and fistula in ano. The symptoms of stricture, growing worse each month and not having more than one operation on bowels a week, brought the patient under examination July 28, 1890. After inducing anæsthesia examination, revealed a fistulous tract from superficial sphincter opening one and one half inches from anus, also flaps or folds of mucous tissue around the anus; within were infiltration and thickening of mucous and submucous structure, and about three inches above the anus an annular stricture almost occluding the rectum.

After dividing the fistula and superficial sphincter, a pair of uterine dressing forceps were introduced through the stricture, by means of which sufficient dilation was made to introduce a probe pointed bistoury; two incisions were then made well dividing the stricture bi-laterally. Pratt's large dilating speculum was then introduced dilating the rectum to its full capacity, being frequently turned in various directions for the purpose of thoroughly using a douche of warm carbolized water, and curette and silver nitrate to all suspicious pockets.

Keeping up these antiseptic precautions for about twenty minutes, and the speculum remaining *in situ* paralyzing all muscular action, no difficulty was experienced in bringing down the stricture with a tenaculum and securing with an Emmett needle armed with catgut suture or loop; the mucous membrane from the stricture to the anus falling in folds and protruding from the anus like external pile tumors, an assistant then holding the stricture in position by means of the loop, the posterior folds of mucous tissue were removed with tenaculum and scissors; then making an incision half way around the anus posteriorly and removing corresponding cicatricial tissue in the stricture, the two surfaces thus denuded were securely brought together with catgut sutures. Nothing was at the time done with the protrusion of mucous folds on the anterior surface.

The usual dry dressing was then applied, and patient taking an opiate was put to bed. No suffering or inconvenience followed. The bowels moved each day, and on the eighth day patient returned, when, with the aid of sol. cocaine, the anterior folds left protruding on the day of the operation were snipped off with tenaculum and scissors. Entire recovery on fourteenth day from first operation. No trouble has arisen since.

Note the following suggestions, which will improve the plan of procedure:

1. Don't divide stricture before it has been brought down to the anus, and do not allow it to return after dividing.

2. Don't bring the stricture down with the tenaculum, but use hæmostatic forceps to avoid laceration and puncturing.

3. Don't paralyze with speculum; use fingers to avoid rupturing rectum at site of stricture, which accident might cause peritoneal complication.

4. If stricture cannot be brought down to anus, denude and stitch to muscle.

—Thompson, *Jour. Am. Med. Assoc.*

Medical News and Miscellany.

THE Des Moines Free Dispensary has been abandoned.

DR. J. W. KESLER, of Honesdale, Consul at Ostend, Belgium, is home for a short visit.

DR. L. WEBSTER FOX has returned to his Philadelphia home from an extended European trip.

DR. ECCLESTON gave a lecture, Wednesday, October 22, in St. Luke's Parish Building, Germantown, Pa.

DR. HENRY ECKROYD, of Newport, R. I., was married on Thursday to Miss Ashbridge, of Chester county.

AMONG the guests at the Bi-Centennial Executive Club's eighth annual dinner was Dr. J. J. Levick, of Philadelphia.

DR. WILLIAM E. ASHTON, last week, successfully performed the Cæsarean operation upon a patient in the Philadelphia Hospital.

JEFFERSON'S students threaten to make things hot for Bartholow's successor. If they do, the latter will not find his path strewn with roses.

THE biologist of Johns Hopkins reports that the Maryland oyster will have gone to join the buffalo as an extinct species in the space of three years.

TENNESSEE reports typhoid fever in 19 counties; whooping cough in 12; diphtheria in 7; scarlatina in 7; measles in 3; Shelby county reports all five.

DR. J. J. GRIFFITH, of Manayunk, has consented to bear the standard of the Prohibitionists in the legislative battle. Sorry so good a man cannot win.

DR. ARTHUR V. MEIGS delivered an address on the Morbid Anatomy of Typhoid Fever, Thursday evening, October 23, at the semi-annual meeting of the Philadelphia Pathological Society.

PRINCIPAL FETTERS, of the Normal School, has endowed a bed in the Medico-Chirurgical Hospital, in memory of his deceased wife. The girls of the school furnished a room some time ago in this hospital in Mrs. Fetters' name.

A NURSE says that the great danger to the young members of her craft is being made love to, while the older are apt to take to drink.

The old, old story. When Theseus deserted Ariadne, Bacchus consoled her.

A PHILADELPHIA lady, thinking that nature had not quite done her full duty by her, bought a box of "Circassian Face Ointment," which she applied to her face. The consequences were so grave that she has entered suit against the druggist, claiming damages to the amount of $5,000.

CHICAGO CHILDREN'S HOSPITAL.—A meeting of the Board of Directors of the Chicago Children's Hospital and Mission to the Destitute was held at the Sherman House. It was determined, as soon as a house could be rented, to go forward with this commendable undertaking, and provide a home for the needy class of disabled and infirm children.

THE *Country Doctor* proposes to give each of its subscribers a free ticket for a trip around the world by the Chicago balloon line, as soon as the latter gets into working order. The subscription price of our contemporary (one dollar) can be sent at once; and we can assure our readers that no one thus sending will be *left*; though he need not pack his grip in a hurry, as the line will not be open this year.

REMARKABLE success has been attained by Prof. Ahn, of Breslau, in applying photography to fix the indications of different diseases of the eye. Another contribution to one of the newest departments of science is Prof. Fischer's photographs of cultivation of luminous bacteria, which were photographed by their own light—the views giving evidence of the constant movement in which the tiny organisms are unceasingly engaged.

NEARLY a million emigrants leave Europe yearly to seek new homes. Of these the Norse, German, British, and Irish go mainly to the United States. Next in popularity comes Argentina, where Italians and Spaniards resort. Brazil comes third. Australia exemplifies the difference between an independent country and a colony. She only attracts an annual immigration of 60,000, while she already furnishes a supply of her citizens to build up other lands, in spite of her boundless wealth of undeveloped territory.

THE November number of *The Sanitarian*, forthcoming, will begin the publication of the Transactions of the American Climatological Association, held at Denver, Col., September 2, 3 and 4, 1890. All new subscribers for *The Sanitarian* for 1891, sending their subscriptions before the 15th of November, will be supplied with the November and December numbers gratis. Subscription, $4.00 a year, in advance. All correspondence should be addressed to the editor, A. N. Bell, M.D., 113a Second Place, Brooklyn, N. Y.

AT the meeting of the American Pharmaceutical Association, in September, at Old Point Comfort, Va., Oscar Oldberg read a paper upon The Constitutional Obligation of Congress Regarding Weights and Measures.

Accompanying this paper the writer submitted the following resolutions:

WHEREAS, The Constitution of the United States imposes upon Congress the duty of establishing fixed standards of weights and measures for the use of the people; and

WHEREAS The customary weights and measures in use in the United States are arbitrary, unsystematic, inconvenient, and indefinite, being governed partly by English law, partly by tradition, and partly by chance; and

WHEREAS, No laws of the United States exist establishing a national system of weights and measures or fixing the values of the customary units; therefore be it

Resolved, by the American Pharmaceutical Association, That Congress be and is hereby respectfully requested to consider, without unnecessary delay, the importance of legislation upon this suject; and further

Resolved, That it is the sense of this Association that it would be worthy the dignity of the American nation to celebrate the four hundredth anniversary of the discovery of America by the adoption of the decimal system of weights and measures in all governmental transactions and for purposes of foreign and inter-state commerce, to take effect on the date of the landing of Christopher Columbus on this continent, and

Resolved, That copies of these preambles and resolutions be forwarded by the Secretary of this Association to the Speaker of the House of Representatives of the United States, to the Chairman of the Committee on Coinage, Weights and Measures of the House of Representatives, and to the Superintendent of the Bureau of Weights and Measures.

These resolutions were adopted, and a committee appointed to urge the attention of Congress to the matter.

THE *Texas Health Journal*—he of the excited imagination that sees hydra-headed monsters clawing at his scalp—proposes a new medical college in Texas on a new and original plan. There are to be ten professors; eight regular, one homœopath, and one eclectic. They are to be appointed by the State Medical Association, and to constitute a State Board of Health. This college is to have supreme control of the practitioners of medicine in Texas. The college is to be supported by the State, and charge no fees. It also records deaths and births; but it is not stated whether it collects garbage or not.

IT is not generally known that the Irish member of Parliament, John Dillon, now on his way to America, is a doctor by profession. Previous to the land agitation he was demonstrator of anatomy at the Ledwich School of Medicine, in Dublin, and distinguished himself by making some discoveries which have proved of importance to science. Mr. Dillon has visited the United States several times. He is loved in Ireland with a peculiar love; it is akin to the feelings of a mother for her favorite child. He, on the other hand, always speaks of the Irish as "My people." Mr. Dillon entered the present Irish movement because he took in the spirit of Irish Nationalism with his blood, and because by his nature he was bound to be an enthusiast in some cause.—*N. Y. Telegram.*

POLICE SURGEON ANDREWS is not the only person who mourns the loss of an overcoat through the visit of a sleek young thief. Dr. Bradfield, 1236 Spring Garden street, lost two overcoats and a pair of opera glasses. The doctor recovered the opera glasses at a pawnbroker's.

Druggist Ashmead, Eleventh and Walnut streets, lost a coat, as also did another physician and a dentist. The thief is described as being of medium size, dark complexion, has a small black mustache and small side whiskers, is well dressed, including patent leather shoes.

The sneak thief who visited the office of the *Medical Press* Company, on Saturday afternoon, October 25, was light in complexion, and differed in many respects from the above description. It is probable that several of these gentry are working doctors' offices, and warnings should be given against people who come in to wait in the office.

AERATING MILK.—The New York Dairy Commission says that milk can be sent further and will be in a better state for use when aerated down to the temperature of the atmosphere than when chilled and sent on ice. The process is very simple, and consists in allowing the milk to run from one receptacle to another in fine streams, so as to come thoroughly in contact with pure air. It should not be done in the

barn or stable, but out of doors where the air is purest. If nothing better is at hand, let it run through an old colander two or three times. A better arrangement is a set of perforated pans, one above the other, through which the milk may run in fine streams. It is held that tyrotoxicon poison is generated in cream for the want of proper aeration, and that unaerated milk is the great enemy of infants and the great cause of cholera infantum.

MEDICO-CHIRURGICAL COLLEGE NOTES.—The question as to the advisability of having the lectures of some of the professors stenographed and type-written is now being agitated by the classes of the Medico-Chirurgical College. Some argue that the student can thus pay more strict attention to the lectures, as he often loses a good point while engaged in jotting down one already made, and by having a type-written copy of the lectures given him the following day he will be more likely to refresh his mind upon the most important and essential parts of the lectures, which he is not so apt to do, when to do so turning the leaves of ponderous text-books is made necessary. Others argue that it will tend to make students cut lectures; but if each professor calls the roll, that tendency will receive a wholesome check.

Prof. Anders takes two sections of the senior class through the wards of Blockley every week. The abundance and variety of cases to be seen at this institution offers a rare opportunity for bedside instruction.

Dr. Wm. B. Stewart, of the class of '90, conducts the senior recitation in Practice. His method of conducting the recitation is highly appreciated by the students. They are not asked to give only the causation, pathology and symptoms of disease, but are required to place upon the blackboard a correctly written prescription in addition to an oral statement of the general line of treatment.

The following new assistants at the surgical clinics of Profs. Goodman and Laplace have been appointed: On Prof. Goodman's clinic—Charles J. Stein, Gordon L. Harker, W. N. Watson. On Prof. Laplace's clinic—S. Montegut, August Trapold. On Prof. Montgomery's gynecological clinic F. H Maier and Harry L. Clayton have been appointed assistants.

Professor Shoemaker is giving the senior class a very thorough and practical instruction in electro therapeutics. Through the kindness of Mr. Yarnall he has had placed in the clinical amphitheater a large Waite & Bartlett static machine, which he uses for the practical demonstration of the efficacy of the static current in various diseased conditions.

The senior class will be divided into sections for practical work in gynecology, under the charge of Dr. Early.

FOURTEEN WAYS TO HELP A DOCTOR.—1. When it is necessary to send for medical service, do so, if possible, before the physician goes out for his morning round of visits. Do not delay until he has come in tired, having possibly been in the very street in which you live.

2. If possible, send a note stating which member of the family is ill, and briefly detailing the symptoms, and giving the doctor an idea with regard to the case.

3. If unable for any cause to send a note, at least try to send some intelligent messenger who can write out the call in full on the doctor's slate.

4. In case of poisoning, be sure to send word, if known, what poison has been taken, as the doctor may then be able to bring with him an antidote in time to save life.

5. When the doctor comes, let some one person who is familiar with the case give him the details with regard to it; too many informants create confusion.

6. Do not discuss the case before the patient.

7. Have a pencil and slip of paper, and write down at once the instructions received.

8. *Try to be exactly accurate in statements.*

9. Do not have children or dogs in the sick room during the doctor's visit, as the children and dogs will divert his attention.

10. Carry out faithfully and exactly the orders given by the medical man.

11. "Trust me not at all or all in all," should be the doctor's motto.

12. When consulting a medical man in his own house, do so during his office hours. Do not go just at the time he takes his meals.

13. Finish the professional interview with him in his consulting room, and do not continue detailing symptoms in the hall when being shown out.

14. Bear in mind the comfort of the doctor, and when the conditions suggest, do not forget to give him a cup of cold water, or of hot coffee, or a plate of soup, as the case may be.

You will give him renewed in piration for his work.

[If the contents of the journal from which the above is taken are all like this, its name should be changed from *Good Housekeeping* to *Good Sense.*]

TO CONTRIBUTORS AND CORRSEPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from October 3, 1890, to October 13, 1890.

By direction of the Secretary of War, First Lieutenant Allen M. Smith, Assistant-Surgeon, is relieved from duty at Fort Snelling, Minn., and will report in person to the commanding officer, Fort Assinniboine, Mont., for duty at that station, relieving Assistant Surgeon Paul Shillock. Lieutenant Shillock, upon being relieved, will report in person to the commanding officer, Fort Custer, Mont., for duty at that station, relieving Captain William R. Hall, Assistant-Surgeon. Captain Hall, upon being relieved by Lieutenant Shillock, will report in person to the commanding officer, Fort Schuyler, New York, for duty at that station, relieving Captain Norton Strong, Assistant-Surgeon. Captain Strong, on being relieved by Captain Hall, will report in person to the commanding officer at Fort Meade, S. Dak., for duty at that station. S. O. 232, par. 8, A. G. O., Washington, D. C., October 3, 1890.

Changes in the Medical Corps of the U. S. Navy for the week ending October 18, 1890.

BRIGHT, GEORGE A., Surgeon. Detached from temporary duty at the Naval Academy, and placed on waiting orders.

AYRES, J. G., Surgeon. Detached from temporary duty at the Naval Academy, and placed on waiting orders.

LUMSDEN, GEORGE P., Passed Assistant-Surgeon. Detached from U. S. S. "Boston," and granted three months' leave.

AUZAL, E. W., Passed Assistant-Surgeon. Detached from the Naval Academy, and ordered to U. S. S. "Boston"

SMITH, HOWARD, Surgeon. Ordered to appear before the Retiring Board at Mare Island, Cal.

The Times and Register.

Vol. XXI, No. 19. NEW YORK AND PHILADELPHIA, NOVEMBER 8, 1890. Whole No. 635.

PAGE

ORIGINAL ARTICLES.

SUPPLEMENTARY REPORT TO A CASE OF CHOLECYSTOTOMY. By Rufus B. Hall, M.D., Cincinnati - - - - - - - - - - - 421
OPERATIONS UPON THE ENLARGED PROSTATE. By Wm. T. Belfield, M.D., Chicago 422
INDIAN MEDICINE MEN.—THE HYPNOTIC COUNTENANCE. By A. A. Surgeon S. S. Turner, U. S. A. - - - - - - - - - - - 423
THE WEST INDIES AS A SANITARIUM. By William F. Hutchinson, M.D. - - - - - 425
ADMINISTRATION OF MORPHINE BY THE NOSTRILS. By Carl H. Von Klein, A.M., M.D., Dayton, O. - - - - - - - - - - 427
COUGH, OF NASAL ORIGIN. By A. B. Thresher, M.D., Cincinnati - - - - - - - 428
"A FEW 'POINTERS' FOR THE GENERAL PRACTITIONER." By Herbert A. Starkey; M.D., Hegewisch, Ill. - - - - - - - - 428

SOCIETY NOTES.

PHILADELPHIA COUNTY MEDICAL SOCIETY, 429
A Report of Intergsting and Important Abdominal Sections. *Price* - - - - - 429
Parovarian Cyst Strangulated after Delivery. *Price* - - - - - - - - - - - 430

PAGE

MISSISSIPPI VALLEY MEDICAL ASSOCIATION 433
The Psychopathic Sequences of Hereditary Alcoholic Entailment. *Hughes* - - - 433

THE POLYCLINIC.

Troublesome Flow of Saliva. *Waugh* - - 434

EDITORIALS.

AN ALLEGED ABORTIONIST - - - - - - - 435
BERMUDA - - - - - - - - - - - - - 437

ANNOTATIONS.

Some Therapeutic Principles, Now and Previously Held by the New School of Medicine, which are Unsound - - - - - 438
Absorption of Drugs from the Vagina - - 438
Stinkpots as Weapons - - - - - - - - - 438
Treatment of Typhoid Fever - - - - - - 438
Text books on Obstetrics - - - - - - - 438

LETTERS TO THE EDITOR.

Piratical Publishers, *Murrell* - - - - - 439

CINCINNATI LETTER - - - - - - - - 440

BOOK NOTICES.

The Medical Student's Manual of Chemistry. *Witthaus* - - - - - - - - - - - 441

PAGE

A Treatise on the Diseases of Infancy and Childhood. *Smith* - - - - - - - - - 441
Wood's Medical and Surgical Monograph - 441
The Latin Grammar of Pharmacy and Medicine. *Robinson and Sayre* - - - - - - 441
A Text.book of Comparative Physiology. *Mills* - - - - - - - - - - - - - 441

PAMPHLETS - - - - - - - - - - - - 441

THE MEDICAL DIGEST.

A Case of Tetany. *Med. Press and Circular*, 434
For Pigmentation of the Skin in Pregnancy. *Nouveaux Remèdes* - - - - - - - - - 434
FRENCH NOTES. *Roussel* - - - - - - - - 442
Surgery of the Nervous Centers. *Horsley* 442
Identity of Human and Animal Diphtheria. *Delthil* - - - - - - - - - - 442
Epilepsy of Nine Months' Duration Following Dental Caries. *Bakowski* - - - 442
Correlations of the Sexual Functions and Mental Disorders of Women. *Barnes* - - 442
Adulteration in Foods and Drugs. *Newton*, 443

MEDICAL NEWS AND MISCELLANY, 443

ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - - 446

NOTES AND ITEMS - - - - - - - - iv, xiv

Original Articles.

SUPPLEMENTARY REPORT TO A CASE OF CHOLECYSTOTOMY.[1]

BY RUFUS B. HALL, M.D.,
CINCINNATI.

I TAKE this, the first opportunity, at the first meeting of this society after the summer vacation, to put the remainder of the history of this very interesting case on record. When I prepared the report of the case for the State Society meeting, the patient was rapidly improving, with every prospect of a permanent recovery. I did not have an opportunity to present my paper at that meeting, from the fact that it was a volunteer paper, and the regular programme occupied all the time. I read the paper before this society June 10, and it was published in the Philadelphia TIMES AND REGISTER soon afterwards.

The operation was made April 13, 1890, at 10 A. M. (For details of the operation I will refer the reader to the published report.) Very briefly I will say: After making an incision through the abdominal wall we came upon the distended gall-bladder, which was aspirated and six ounces of gall removed. I then incised the gall-bladder and removed four gall-stones, which were lying loose in the bladder. On searching for the cause of the obstruction it was easily found, and proved to be a stone impacted in the common duct, which was removed without difficulty. After probing with metal probes, and then passing a No. 7 English male bougie through the common duct into the intestine and detecting no obstruction, the gall-bladder was stitched to the upper end of the abdominal incision and the abdominal wound closed in the ordinary way.

Thirty hours after the completion of the operation it was plainly evident that the patient could not long survive if the hemorrhage, which had existed from the time of the operation, could not be controlled. After gaining the consent of the husband, I opened the abdomen to search for the bleeding point; this proved to be from the edges of the abdominal incision; there was no bleeding vessel, but oozing from every portion of the wound. This was controlled, and she went through the operation as well as the first. On the third day she retained liquid food, and on the fifth day she had a ravenous appetite. The stools showed the presence of bile from the first movement, which was on the fourth day.

On May 4, twenty-one days after the operation, the sinus where the drainage-tube was placed in the gall-bladder was closed, and remained so for more than a *month*, without the least inconvenience, pain or tenderness in the region of the scar or gall-bladder. The cholæmia had entirely disappeared, and the stools returned to their natural color within a few days after the operation, showing the presence of bile in the intestine, and remained the natural color for more than *two months*' time. She gained in strength and flesh every day, and was able to go up and down stairs and to superintend her household duties up to about the middle of June, when she commenced to suffer from an uneasy sensation in the region of the gall bladder. She lost her appetite; the tongue became coated; the stools, which had before been the natural color, now became lighter and finally putty color. In a few days after she commenced to complain there was a perceptible enlargement in the region of the gall-bladder. As this increased she suffered more pain, became restless, appetite almost wholly failed, and she lost flesh rapidly. Within a week after she commenced to complain there was an enlargement in the region of the gall-bladder the size of a closed hand, with every

[1] A paper read before the Cincinnati Medical Society, September 9, 1890, also read by title at the Ohio State Medical Society, June 4, 5 and 6, 1890.

indication that she was again suffering with an obstruction of the common bile duct. The enlargement increased and commenced to bulge at the site where the drainage tube had been placed. This was incised by her physician, Dr. Stevens, and a pint or more of bile discharged. This gave her relief, and through the wound there was a thorough search made for the cause of the obstruction, but no stone could be found. After repeated examinations it was believed that the cause of the obstruction was due to a contraction of duct at the point where the stone was impacted at the time of the operation. Up to the time of her death the external wound closed about a half dozen times for a few days at a time. As soon as the wound would close the stools showed the *psesence of bile*, and the patient felt some better until the gall-bladder became greatly distended, when she would suffer from the pressure until the adhesions gave way or. it was laid open. These facts led us to more firmly believe that the obstruction in the common duct was due to a stricture, and not an impacted stone. After the gall-bladder discharged externally she felt better because relieved from pressure, but worse because deprived of bile. The last three weeks of her life the gall-bladder remained open externally and discharged freely. She died of exhaustion on the 24th day of August, four months and eleven days after the operation.

The autopsy was made the following day by Dr. E. S. Stevens. Present: Drs. W. E. Shaw and C. B. Van Meter. The stone here presented was found in the common duct. The stone, as you will see, is about the same size and shape as those removed at the operation, and has no facets upon it.

A very interesting question in the history of this case is, Where was this stone at the time of the operation? I think it was in the hepatic duct. My reason for believing that the stone found at the autopsy was in the hepatic duct at the time of the operation is the fact that I am certain it was not in the gall-bladder, cystic or common duct, and the known fact that stones do form in the *hepatic duct*. After removing the stones from the gall-bladder and the one from the common duct at the time of the operation, after probing the duct I passed a No. 7 English male bougie through the ducts into the intestine, as the physicians witnessing the operation will readily recall. After the operation, with the gall-bladder attached to the abdominal wall, a stone in the hepatic duct, in its descent the most direct course would be into the common duct, particularly when we remember that this was markedly dilated above the point where the stone had been impacted. Again, the subsequent history after the operation goes to prove that the common duct was pervious for more than *two months* after the operation.

Another question naturally comes up, Why did we not make a second operation? This is an important one, which I will try to answer and give you my reasons for not operating.

The whole history of the case after the operation was one that would indicate stricture, and not an obstruction from a stone. When we recall the fact that the patient had an impacted gall stone in the common duct for more than nine weeks before the operation, which probably caused ulceration at the point of impaction, it would not be an unreasonable thing to believe that the obstruction was due to stricture of the duct at that point; particularly when we recall the fact that at all times when the external opening to the gall-bladder was closed the stools showed the *presence of bile at once*, just as we would expect it to do in a case of *stricture*, and not as we would expect it to do in a case of impacted stone. This, and the fact that we were unable to find a stone by careful and repeated examination, is what we took for fair evidence to found our diagnosis upon. Granting, then, that we had an organic obstruction in the duct near the intestine, I could see but one thing to be gained by an operation, and that would be an anastomosis between the gall-bladder and the intestine. This was carefully and fully considered by the physicians and family, but the patient had lost strength so rapidly after the relapse that any operative interference seemed like a necessarily fatal procedure. Again, the family were not favorably inclined towards an operation unless we could promise definite results, therefore an operation was not urged. If we had known that the cause of the obstruction was due to a stone in the common duct, we could have promised something more definite from another operation, as it would have been an exceedingly easy task to remove it.

While I know of no case similar to this one—and we were governed wholly by the case before us at the time of action—it has been a most valuable lesson to me, and I want to put it on record for the good it may do others. The one great lesson it teaches, above all others, is *exploration in all doubtful cases.* An exploration might have saved the patient's life, yet I doubt this very much, in her feeble condition; but it would have given her a chance, and we certainly would have urged it if we had believed the obstruction due to a stone.

The result shows that there are remote dangers following the operation for gall-stones, which may terminate fatally as in this case. After the operation this was a most promising case, and the patient was practically well when she took the relapse. The remote dangers or complications following this operation have not been mentioned in any of the reported cases or books at my command.

The case also illustrates that obstruction of the common duct, and thus depriving the economy of bile, will cause the death of the patient in a comparatively short time.

OPERATIONS UPON THE ENLARGED PROSTATE.[1]

By WM. T. BELFIELD, M.D.,
CHICAGO.

SURGICAL interference becomes necessary for the relief of two conditions due to prostatic enlargement:

1. Acute retention where catheterism is impossible.
2. Chronic retention causing severe cystitis where self-catheterism is impracticable, or impotent to relieve.

The first condition—acute retention where catheterism is impossible—is in my experience never met, except as the result of forcible attempts to introduce metallic instruments. If the physician first called to a case of acute retention would use only rubber or elastic catheters, he would rarely fail to enter the bladder; for the obstruction is merely an œdematous swelling, not an organized stricture. Unfortunately the common practice is to resort to metal instruments and—if the first attempt fail—force; thus are made false passages, after which even the most skilful hand may fail to introduce any catheter. Under

[1] Abstract of paper read before the Mississippi Valley Medical Association, at Louisville, Ky., Oct. 9, 1890.

these circumstances the urine should be withdrawn by supra-pubic aspiration or puncture with fine trocar, a safe and simple procedure, and yet one whose value does not seem generally appreciated. After relief of tension and swelling by this means, spontaneous urination, or easy catheterism, usually follows.

The relief of the second condition—severe cystitis from chronic retention—is a more serious problem, which has, however, been solved by various operations during the past five years. Temporary drainage of the bladder by perineal or supra-pubic incision affords a relief complete, but of uncertain tenure; the factors which induced the original malady remain undisturbed; they may and, as experience shows, they often do cause a recurrence of the trouble; hence the need for radical procedures.

The simplest attempt at permanent relief is the supra-pubic fistula, a measure practised in various ways for half a century; its most satisfactory form is that recommended by McGuire, of Richmond, who makes the fistula run from the lower angle of the vesical wound to the upper end of the cutaneous incision, thus "bearing the same relation to the bladder that the spout of a coffee-pot does to the bowl." A permanent fistula is, however, a mutilation obviously to be employed only when the restoration of the natural channel seems impracticable; moreover, aside from the objections on the score of sentiment and comfort, the fistula sometimes fails to relieve the cystitis, probably because the prostatic tumors projecting into the bladder, like foreign bodies, cause mechanical obstruction. Bennett May, among others, reports three such failures in his own practice, one of which he subsequently relieved of cystitis by excision of a projecting middle lobe. It would seem only rational that if the surgeon goes so far as to make supra-pubic cystotomy and discovers prostatic outgrowths, he should certainly take advantage of the opportunity to restore the natural channel, rather than inflict a mutilation of doubtful utility in the form of a permanent fistula. In exceptional cases the restoration of the urethra may seem impracticable, and the permanent fistula, therefore, a justifiable substitute.

The removal of prostatic obstructions—the radical operation—has been sought by four avenues of approach:

1. The urethra (Mercier, Bottini).
2. Perineal urethrotomy (Harrison, Keyes).
3. Supra-pubic cystotomy (Belfield, Kummell, McGill).
4. Combined perineal and supra-pubic incisions (Schmidt, Belfield).

These represent successive stages of development; the primitive attempts of Mercier and the modification by Bottini seem to be hap-hazard procedures, based on a faulty conception of the nature of the obstruction. They may doubtless, by a happy chance, be sometimes successful.

Perineal urethrotomy secures digital contact with the prostate, and often permits intelligent operation upon the obstructing prostatic growths. Experience shows, however, that in the greater number of cases requiring operation, the prostatic urethra is too long and too rigid to permit the removal, or even the detection of the commonest obstacles, namely, the tumors of prostatic tissue which project, in the shape of median or lateral lobes, into the vesical cavity.

Supra-pubic cystotomy affords complete access to these projecting lobes, but in a few instances has failed to reach obstacles projecting into the prostatic urethra; in other words, has failed to restore a low-level urethra. Schmidt, of Cuxhaven, reports a striking example, where supra-pubic excision of a large middle lobe failed to restore voluntary urination or even easy catheterization; but, after a subsequent perineal urethrotomy and incision of a hard mass in the prostatic urethra, both were regained. I have had a case essentially similar.

In the abstract, therefore, supra-pubic cystotomy, with or without a supplementary perineal incision, as the exigencies of the particular case may require, is *the* operation for the removal of prostatic obstacles. Yet many patients are, when they reach the surgeon, too feeble to endure this procedure; in such cases the perineal operation is to be preferred. It gives temporary relief in all cases, complete cure in a fair minority, and, because so quickly performed, includes less danger of uræmia and shock, the two chief causes of mortality in these old men.

I have collected 133 operations on the enlarged prostate, performed prior to July 1, 1890. Of these, 41 were perineal (mortality 9 per cent.); 88 supra-pubic (mortality 16 per cent.); and 4 by combined incision (none fatal). An important question to be decided is, of course, whether voluntary urination can be restored in cases habitually dependent upon the catheter. For this purpose only 56 of the 133 cases are available, the reports of the remainder being incomplete.

Of these 56 persons who had been dependent on the catheter for periods varying from one to ten years, all were relieved of cystitis, and 38, or two-thirds, recovered the power of voluntary urination; in the remaining 18 the operation failed to restore this function.

Excluding the cases complicated with calculi—where it might be objected that the benefit accrued less from the prostatectomy than from removal of the calculus—there remained 41 cases of operation for the restoration of the urinary channel; of these, 32, or four-fifths, recovered the power of urination; in 9 the operation failed to restore this function. The successful cases were under observation for periods varying from six months to two and a half years after operation.

Radical operation upon the enlarged prostate is, therefore, an established procedure, worthy of general consideration; the pioneer results will naturally be improved by added experience.

INDIAN MEDICINE MEN.—THE HYPNOTIC COUNTENANCE.

By A. A. Surgeon S. S. TURNER, U. S. A.

IN a late number of *The Medical News* I printed some observations upon "Indian Medicine" as it was known amongst the Sioux Indians twenty years ago, and I purpose now some observations upon *Medicine Men*, and the "*Hypnotic Countenance*." The latter term, it is hoped, will be justified in the end.

My remarks in the previous article referred to were confined to medicine and surgery, for the reason that obstetrics is wholly a different matter with the aboriginies, and in the hands of an entirely different class of practitioners. Men are wholly excluded from the presence of the parturient patients. It fell to my lot, however, to be twice consulted in cases of this kind, in a service of something more than seven years. A description of the circumstances, and the outcome of these cases, will sufficiently illustrate the subject.

My first call was from an Indian who had served the army for some years as a scout—and was still in

the service—and had lived part of the time at a Military Post, away from his people—his duty being mainly that of mail carrier. In this way he had learned something of the practice of the army surgeons. By way of explanation he informed me that he had no faith in "Indian medicine," but was a believer in the white man's medicine. His squaw had been delivered of a papoose two days before, and the placenta had not come away. The old women could not help her, and he wished me to put her to sleep and relieve her.

I found her lying down, the cord tied with a dirty strip of calico and bound to the leg, near the knee. The old women had deserted her upon my approach, leaving her entirely alone. She was perfectly calm, and offered no objection to any of my proceedings. Not finding the placenta in the vagina, I administered ether, and found a well-marked case of so-called "hour glass contraction." Careful delivery was effected, and in a day or two the woman was about her work as usual.

My next call was from the principal chief of the largest band at the Agency, consisting of about four hundred lodges, including the following of several sub-chiefs. The afore mentioned scout was at present living with this band. One of the numerous squaws of this noted chief was suffering from retained placenta, of one or two days' duration. The shriveled old hags who constituted the midwives amongst this people did not desert the patient this time upon my approach. This was due to the patient herself. A numerous herd of them had her in charge, and were marching her about in a remote portion of the camp, the cord being tied to her leg, as in the previous case.

It was soon apparent that the chief was not master of a situation of this nature, and the usual social devices of pipes and councils were resorted to to gain time and wait for results. Various ambassadors were sent and returned, and finally the great warrior received his vassal's ultimatum: "She would adhere to the customs of her people; and, if need be, preferred death rather than that a man should come near or touch her in her present condition." On the following day the chief brought me the glad tidings that she was "all right."

Midwifery was restricted to women past the child-bearing period, and, for the most part, to the very old. Their duties were simple. They ligated the cord, received and cared for the child, rolling and packing it in such a way as to prevent movement, and leaving only the face and brow free, so that it could nurse. When the after-birth came away it was enshrouded and treated much as a corpse, except that instead of being placed upon a scaffold built either upon the branches of trees or upon posts sunk into the ground, it was hung upon a limb by a thong of dressed skin. As a physiological process, child-bearing amongst these savages differed little from "breeding" amongst common animals. Accidents were less frequent than amongst "thorough-bred" stock. There is much connected with the subject that would appear incredible to a person having no knowledge of savage life. A band of Indians on the march were not embarrassed by so simple a thing as the birth of a child. I knew a boy who was dropped into the snow. His mother rolled him in a blanket and rode twenty miles before going into camp, the temperature being below zero. I also recall the case of a woman who, as soon as her child was born, jumped into the river and amused herself bathing and swimming until the placenta came away. "Confinement" would be a misnomer applied to them, and from this standpoint may be estimated the price which woman pays for civilization and "meddlesome midwifery."

To the student of human nature, one of the most interesting studies connected with Indian medicine is the mental type of the men who alone, so far as my observation goes, aspire to fame and a numerous herd of ponies by adopting the calling. The mental constitution is usually plainly stamped upon the countenance, and denotes what I have presumed to call the "Hypnotic Countenance."

An experience of my youth made a strong impression upon me with regards to this type. Of mesmerism I knew nothing, either historically or from observation, when, out of curiosity, I attended an exhibition by a hypnotist of remarkable power. He was in the village for the first time in his life, and personally knew no one. He selected from the audience people well known to me, every one of whom possessed a dreamy, absent expression of eyes and features. He understood his business, and could tell at a glance an easy victim of his subtle power, the exhibitions of which were truly marvelous. Something inspired me to resent this power, and I defiantly placed myself at his disposal as a subject. I obeyed every instruction, with perfect confidence in my ability to resist his influence. He made no more impression upon me than if I had been a statue.

At a later period a so-called Spiritualist, to whom I was personally much attached, introduced me socially to a large and intelligent association of those of his faith, whose social gatherings I frequently attended. Here, to my surprise, I found the prevailing type of facial expression the same as that selected by the mesmerist for the demonstration of his marvelous power. I soon found it possible to judge almost infallibly who were believers and who, like myself, were interested spectators and students of human nature.

Two strongly marked examples of "the faithful" may be mentioned. The first, a sedate, dignified gentleman, of gentle, absent expression, was a trance speaker, "under the control of the spirit of Demosthenes." I think he believed this, and certainly the spirit of the great orator need not have been ashamed of his orations when in a condition of apparent trance. Whatever may have been the occult force inspiring this gentleman, his impressibility was something wonderful. I was never conscious of any hypnotic power in my own person, but by simply attracting his attention in a room, I could make him scream with terror that was strongly expressed by his features.

The second was a trance musician of great power and skill upon the piano. He had the most remarkable expression of face I ever saw—not idiotic, but dreamy almost to imbecility, and eyes that when opened had a far-away, "lachrymal aspect" that affected the observer strangely. He was "under the control of the spirit of Beethoven," so report said, and "projecting himself" into the trance condition, he would render most brilliantly not only the known compositions of the great composer, but others "composed in the spirit world," and "communicated while the performer was in the trance state."

Now, studying the medicine men of the savage Sioux, I encountered for the third time this same hypnotic countenance in its savage purity—or impurity. There was the same dreamy abstraction, not softened by culture, but bearing the impress of low, savage cunning in various degrees. There is none of the strength of the savage warrior in their

faces. As a matter of fact they do not fight, but "wrestle with the gods" while braver men rush to battle. These men are also under the control of spirits—not of Beethoven or Demosthenes, but usually of some animal, whose characteristics they imitate at times with such skill as they possess.

I recall one who was subjected to the control of the spirit of a bear. He dressed, looked, and acted the bear so far as he was able. I have seen him imitate the spiritualists' trick of working himself into a trance, when he would have his personality in that of the bear, and go through all the antics of the bear that is hunted, wounded, and finally slain. Beginning with the sinister look, and the deep, ominous growl, he would progress to frantic rage, tear the ground with his imaginary claws, and finally go into a convulsion and die, frothing blood and foam from his mouth. Presently he would come to life again—gaze vacantly and sheepishly about him, and steal away, without any one being able to "catch his eye."

All this was impressive to the savage mind, and always happened when spectators were numerous.

It may not flatter our vanity to suppose that "historic medicine" had its birth, if not its baptism, in the hands of men of this same type, but there is abundant reason for such a suspicion. And even in the present day this element supplies the "magnetic healers," the "faith curers," and quacks in general, while not a few of the higher branches of the mental tree drop into the mystic pool of Hahnemannism. But in the representative assemblies of the regular profession the hypnotic countenance is overshadowed by as strong and manly a set of faces as will be found in any other cultured assembly in the world. And yet, the ghost of this intellectual mysticism hangs about our camp, as is shown by the number in each rising decade who revive the hypnotic craze; who go wild over "methods" that are at best but dramatic and hurtful; and who from new and little understood discoveries, as the bacillus of tubercle, jump at conclusions which contradict the accumulated results of two thousand years of intelligent experience and observation.

Men now talk of hypnotism not only as if it possessed great possibilities for good, but as if it were a power at the command of all, and applicable to all individuals; while, as a matter of fact, relatively few are susceptible to the influence in any marked degree, and fewer still are capable of exercising it in a marked degree. According to my observation it is a power that, when possessed at all, can only be exercised by the stronger upon the weaker; and it is believed, by some at least, that the interposition of the stronger will of a third party will neutralize the power of a hypnotist in a given case. I recall a clergyman of wide learning and more than ordinary force of character, who assured me that he had repeatedly controlled this mysterious force by simply "making the sign of the cross." That he was truthful and sincere I could not for a moment doubt, but I could not accept his conclusion. What he attributed to the mystic power of a religious symbol, I attributed to his superior will-power. He believed that all the phenomena of "animal magnetism," "mesmerism," "spiritualism," "hypnotism," or by whatever name called, had their origin in evil. That it is purely a natural power, but little understood, I am equally confident. But that it may be a power of great evil in evil hands, there is no reason to doubt; while we may reasonably doubt that it has any known power for good. There is great usefulness, of course, in the mental force which enables one to control an obstreperous patient, as in cases related by Emmet and others; but it is doubtful whether such exhibitions belong to the class of hypnotic phenomena. They are evidences, rather, of the power which makes men leaders of men.

THE WEST INDIES AS A SANITARIUM.

By WILLIAM F. HUTCHINSON, M.D.

CHAPTER V.

BEFORE leaving St. Kitts, a gentleman sitting by my side remarked (we were then on our return-trip from Trinidad): "If somebody who had taken the trouble to write articles about these islands had only told us when we were here before that the very best green turtle dinner that the world can afford is furnished by the proprietor of the American Hotel at Antigua, upon receipt of a telegram to that effect from here, my opinion is that everybody would be very glad to take it in." So upon this suggestion I put it down. It is one night's trip across an arm of the sea to Antigua, and the ship dropped anchor, early in the morning, at the nearest point to the picturesque town of St. Johns that lay spreading out at the foot of a mountain three or four miles away.

From our anchorage, Mr. Ellery, the courteous harbor master, took us in in his steam launch.

There are as attractions in the city of St. Johns, the prettiest work in black and red seeds that I ever saw, specimens of petrified tropical woods from the valley a little way inland, called the "Valley of Petrifactions," and a public library containing several thousand volumes, large school maps of the island, with a collection of natural curiosities which would be of some use if they were labeled.

Also there is a beautiful view from the upper windows of a fine cathedral.

The drives about the island are not especially interesting, for it is devoid of striking contrasts of scenery, but they are of quiet beauty, and the air is heavy with the scent that makes even tolerable roads enjoyable. For the rest of the description of this island, my friend Dr. Gardiner has consented to provide our readers with one, which is as much better than mine as might be expected from an old resident. Listen to him.

"Antigua is situated in the Caribbean Sea, between 17° 2′ and 17° 3′ north latitude, and between 61° 44′ and 61° 58′ west longitude; of a rough circular figure, twenty miles long, fifty-four in circumference, and much indented by creeks and bays.

"Although properly classed with the Calcareous Islands, not half of its strata come under that description, while the remainder consists of trap rocks and curious marine and fresh water deposits, furnishing the amateur geologist with many interesting facts and problems.

"The island is flat, with the exception of the south-western division which is hilly. Some of these mountains rise with conical summits to the height of one thousand feet; others, of the same elevation, are more rounded and less precipitous, affording a good soil for sugar-cane. They are intersected by beautifully romantic valleys, and the abrupt sides of the mountains are clothed with the verdant foliage of a great variety of herbs and twining shrubs.

"St. Johns, the capital, is on the northwest coast of the island, and presents on the approach to the harbor a very picturesque appearance, from the beauty of its situation and generally neat aspect. It is a well laid out city, the principal streets are wide, crossed by others at right angles, and the town ex-

tends from east to west, having a gentle declivity towards the harbor, the highest point being about forty feet above the level of the sea. The water supply is ample, and is conducted by iron pipes into every street of the city.

"The Board of Health is vigilant, and the hygienic condition of the town is very good; in fact, the members of the Board pride themselves in saying that no other town in the West Indies can compare with St. Johns from a sanitary point of view.

"Climate:—The weight and temperature of the atmosphere vary but little throughout the year, and especially is this so during the months of January, February and March, when the fanning trade wind holds its steady course, infusing health and vigor into every living creature. The mean temperature of the year is 78° F.; the maximum, 89° F. During January this year the highest temperature registered was 80° F., the lowest 74° F., average being 76° F. During February the highest was 80° F., lowest 74° F., average 78° F. During March the highest was 88° F., lowest 74° F., average 80° F. The above figures were taken by a Fahrenheit thermometer at 9 A.M. and 4 P.M. each day, but during the cloudless moonlight nights at this period of the year the mercury occasionally falls to 66° F.

"The rainfall for January this year was 5′ 21″; for February, 1′ 00″; for March, 2′ 51″. In comparing the rainfall for these months during the last ten years, I find that we have had more than the average amount this year.

"Accommodation:—At present we have one comfortable hotel, capable of putting up from twelve to eighteen visitors, at a cost of thirty-five dollars a month; but there are private boarding-houses where board and lodging can be had at a cheaper rate. I may mention that the members of the Legislative Council are at present considering the advisability of granting a subsidy of seven hundred pounds per annum, with the view of establishing a first class hotel on American principles, so as to perfect as far as possible the island as a health resort.

"As regards luxuries for the table we are very well off here. For example, ice at one penny per pound; oysters at one penny per dozen; turtle eggs, green turtle, for a few shillings; venison seven pence per pound; land crabs, guinea fowls, a large and varied supply of fish. Tropical fruits abound, Antigua being famed far and wide for its pine-apples, which can be purchased for a few cents each.

"By way of amusements we have a well-stocked library, an abundance of tennis courts, cricket, billiards, shooting, Cinderella dances, concerts, etc. The sea bathing is charming, the water of a beautiful blue color, never too cold, just sufficient to enliven and invigorate, and can be enjoyed by all.

"The inhabitants are hospitable, and from being the seat of government for the Leeward Islands, the society can compare favorably with the surrounding islands. We have two clubs, where strangers may be introduced and pleasant evenings spent.

"Roads are good, and ponies can be had for the saddle or buggy at a cheap rate.

"The Registrar-General has kindly supplied me with the following statistics: The number of deaths of persons over twelve years of age, in the city and parish of St. Johns, representing a population of seventeen thousand, for the months of January, February, and March, this year, was eighty-five. Of that number old age and debility is credited with thirty; heart disease, fourteen; phthisis, twelve; dysentery, five; bronchitis, four; affections of brain (including apoplexy, etc.), four; diarrhœa, three; pneumonia, two; dropsy, four; syphilis, two; uræmia, two; leprosy, one; cancer, one; tetanus, one. Of this number probably not more than two or three were white. Heart disease is a common cause of death among the negro population, originating in the practice of carrying heavy burdens on their heads for long distances, without rest or refreshment.

"The number of deaths from phthisis requires to be explained; for, certainly, twelve deaths look ominous in a place posing as a health resort; but when we consider the patients afflicted, the nature of the malady, and the circumstances under which the disease runs its course, the number of deaths is not so alarming as it would appear at the first glance. Firstly, as to the patients. Negroes have not the stamina of the white man, and cannot withstand the attacks of any disease (more especially so is this true in respiratory and cardiac affections) for any length of time, and succumb very rapidly. Secondly, as to the nature of the malady. Phthisis, contracted here, tends rapidly to a fatal issue. Thirdly, as to the circumstances. The negro is ignorant of the most elementary ideas of nursing, and nursing is nowhere of more importance than in phthisis.

"When we come to deal with phthisis in the white population, we find the disease has a different history, especially where the lung mischief has been contracted in a cold country. Then, istead of a rapid progress, the lesion appears to be checked and lies dormant for a long time. Patients with alarming hemorrhage and large cavities, who possibly, if they had remained in a variable climate, would probably not survive another winter, are by a continued residence here improved in health and spirits, and enabled to earn their own living.

"Patients in whose lungs the tubercular bacillus has found a suitable nidus, and taken no uncertain hold of, will be benefited by a residence here, but not cured, that is, using the term as meaning a complete and thorough elimination of the bacillus from the system. I am afraid phthisis here as elsewhere makes truces, but never peace.

"Incipient phthisis and chronic bronchitis benefit by a short residence here in a most remarkable degree; the cough becomes less troublesome, the secretion lessens, and patients gain in health and weight in a in a very short space of time.

"Renal lesions are uncommon in our population, and cases contracted in a cold country do well here. Syphilis is common, but of a very mild type, many of the natives seek treatment, and a fatal result is rare, residence in a warm climate affecting the prognosis considerably for the better.

"Acute rheumatic fever and vesical calculi are practically unknown.

"Business men, nervous and melancholic from over-work and worry, will find a trip to Antigua healthful, pleasant and agreeable, returning home in good spirits, refreshed and invigorated.

"From the above statistics it will be seen that there are no deaths from fevers. Visitors need not be afraid of contracting any malarial taint, which, when it is prevalent in the autumn, is of the mildest type of any in the West Indies. An epidemic of yellow fever has not been known here for over twenty years. PETER GARDINER, C.M., M.D."

In addition to what my friend Dr. Gardiner has said of the hotel accommodations at Antigua, I must put in a word for the excellent green turtle dinners that are served at the American Hotel at short notice, and remind my readers of what I said in a previous

paragraph about cabling over from St. Kitts at the landlord's expense, to have one of them ready when the ship gets in.

There are the usual stories about Captain Kidd going about Antigua, and one of our passenger picked up a fine specimen of a pine-tree shilling for a few pence, which he afterwards sold for thirty-five dollars, which, of course, came from the pirate's hoard.

About the lovely bay, which is full of pretty islets, there is good fishing and sailing for those who like the water, and, take it altogether, it seems to me that a tourist might do far worse than to settle down for a couple of winter months in St. Johns.

Of the island of Dominica there is more to be said from the tourist's point of view than from that of a sanitarium. Some four hundred years ago when Columbus sighted the lofty peaks of Roseau, it chanced to be Sunday, and the captain, with his usual piety, named it Dominica, Sunday Land.

Its capital town is anything but interesting from an artistic or comfortable point of view. There is nothing in the shape of an hotel, nor even a boarding-house, that I could find, but the inhabitants, with generous hospitality, are always ready to find comfortable resting-places for those who come to stay among them.

But if the town is not attractive, the island itself is very much the reverse, for of all the scenery that the West Indies boasts, whether of mountain gorge, deep, dim, verdure-clad valley, or of precipitous orchid-clad mountain side, there is no better example than may be found in beautiful Dominica. One cannot obtain even a slight idea of its beauty without going at least as far up the hills as the famous fall of the boiling springs, and as this involves an entire day, there are few of the tourists by any of the present lines who have an opportunity to study it. Then, too, on the other side of the island from the town of Roseau, there is a tribe of ancient Caribs, or of their descendants, who retain in that inaccessible spot the customs, costumes and manners of the native lords of the soil. But there are twenty-five miles of virgin forest, glades and mountain gorges to traverse to reach them, and one must camp out one night on the way, as there are no places to stop, and as this requires a fitout of servants, animals and tents, there are not many who venture upon the expedition.

But I cannot leave Dominica without speaking of the well-known boiling springs to which we did go, and which I carefully examined.

Leaving town early in the morning, accompanied by a guide, I rode out of the city and set my face toward the distant mountain. Beyond a shallow stream that wound across the path, where darkey women were washing clothes between two rocks, the road plunges into a vast plantation of lime trees, whose golden fruit hung thick overhead among the dark, waxy leaves, or rolled in profusion among the horses' feet, till we came to the factory where the juices are squeezed out, boiled down and shipped to England to be bottled. A little later on, we began the steep ascent upon a road that wound steadily upward beside a mountain stream, in the cool shade of overhanging cliffs, and such glorious luxuriance of tropical foliage as is rarely found, even in these islands. There were clusters of tree ferns, sixty or one hundred feet high, with trunks as thick as one's body, and leaves ten feet long, each one as delicately cut as the little fronds that we find in dark valleys of our own mountains. What the names were of other trees around us, each one of which was wound with parasitic vines, loaded with air plants of every kind, we had no means of ascertaining, for none of us were botanists.

We halted by midday for a little lunch at a point where the barometer measured twenty-two hundred feet elevation. At this place was a sugar estate called "Wotten Waven," that belonged to the American consul, Mr. Steadman. After luncheon we kept on our way until in a ravine we heard the jerky puffs of steam like a high pressure engine, and began to smell the sulphur of the boiling springs. In the bed of the stream made by the spring water, there was a circular depression some six feet across, in which thick blue mud was seething and boiling in the fiercest way. Little cones from the mud burst with mimic explosion, and gave place to open craters which in turn soon became cones. Beneath the ledge on which I sat to sketch, there was rumbling and trembling as of a steam boiler close below with the safety valve tied down. It soon grew so hot that I was glad to get up, and a thermometer bulb, pressed upon the spot I had vacated, marked one hundred and sixty degrees.

A little farther on was the main spring about fifteen feet across, over which, even in that hot air, were clouds of steam. I went to the edge of the water with considerable caution, and found its temperature two hundred and eight degrees. In a moment there came an eruption, and jets of boiling water from every part of the surface were thrown up at least twenty feet in the air; then an interval of quiet of six minutes, and another eruption, and the guide said that this was the usual condition of things. Although the vapor of the air was loaded with the scent of sulphurated hydrogen, I found no evidence of free sulphur to any extent. Stones and limbs of trees in the water course showed no deposit, and a silver coin, held a few minutes in the stream, was not discolored. Probably the metal was vaporized by the intense heat of the spring. Farther on in the depths of these virgin forests, there is a great boiling lake which has been visited by very few white men. My friend Ober, author of "Camps in the Caribbees," is the only one, as far as I know, who has made any study of it, and I commend a trip to the boiling lake of Dominica as worthy the attention of tourists.

Dominica, West Indies, March, 1890.

ADMINISTRATION OF MORPHINE BY THE NOSTRILS.[1]

By CARL H. VON KLEIN, A.M., M.D.,
DAYTON, OHIO.

IN the administration of morphine by the mouth there is generally, besides an inprecipitate taste, a great deal of hacking and spitting, in many to such an extent that it produces an irritation of the throat, especially of the soft palate. If used repeatedly it excites the same irritation of the lips and tongue as in the use of opium, and has been known to blister the mouth. In persons not accustomed to the taste of morphine it produces nausea and vomiting.

Dr. Billroth[2] reports in the case of a lady who took small doses, 0.007 gramme (gr. $\frac{1}{9}$), and even 0.003 gramme (gr. $\frac{1}{22}$), he saw such anxiety, nausea, and vomiting, that, although suffering intense pain, she refused to take the remedy again. Cases of the same nature have been reported by Laborde.

Dr. Wernick[3] has called attention to the occurrence of a paræsthesia of taste after the use of morphine.

[1] Delivered before the American Rhinological Association, October 6, 7 and 8, 1890, Louisville, Ky.
[2] Wiener med. Wochenschr., 1868, p. 763.
[3] Archiv f. Psychiatrie, Vol. ii, p. 174.

As a rule where persons are found to dislike the taste of morphine, or where it is desired to have a rapid physiological action, the hypodermic is resorted to. This, too, finds opposition, on account of puncturing the skin and the danger of producing abscess.

The new method of administering morphine through the mucous membrane of the nose, which I will now describe, has been thoroughly tested by me in over one hundred cases, where the immediate physiological action of morphine was necessary. I have found it to be the most reliable, tasteless, and prompt action than given by the mouth or hypodermic. It requires much smaller doses than taken by the mouth, and no larger than given hypodermically.

The manner of administering morphine through the olefactory canal is simply by snuffing it up the nasal chambers in the same manner and in the same way as snuff tobacco is used. You divide the dose intended in two equal parts; each part is placed upon the end of the thumb and snuffed up into the nostrils. The membranes being very soft and delicate, it instantly appears to absorb. I have tried it myself on several occasions, and it seemed almost instantaneous absorbtion. No more than fifteen seconds after the introduction I have blown my nose and nothing could be found in the secretion.

However, in poor qualities of morphine the drug will not absorb so readily. In cases where the nasal chambers are incrustated and covered by dry secretion, the cavities should be cleansed before administering. Care should be taken not to snuff it up too strong to engulf in the throat. If the drug is of a poor quality it will produce sneezing, but the narcotic effect will be the same.

The administration I have now described, you will find, besides the tasteless and rapid action, to retain the narcotic effect for a longer period than taken by either mouth or hypodermic.

COUGH, OF NASAL ORIGIN.[1]

By A. B. THRASHER, M.D.,
CINCINNATI.

COUGH is a reflex phenomenon due to the irritation of a nerve fiber in the air-tubes, larynx, pharynx, nose, ear, stomach, etc.

A normal cough is for the purpose of freeing the air-tract from some foreign body. Irritation of the upper part of the trachea, and of the ventricles of Morgagni, most frequently produces cough. An irritation in many other locations may be referred by the sensory centers to this region, and thus give rise to cough. Inflammation of the cavernous bodies of the nose or of the adjacent septum has been known to give rise to a distressing cough, and has been mistaken for an evidence of tubercular disease. This is more apt to occur in a person of neurotic temperament. The cough due to nasal disease may sometimes be recognized by its metallic ring and absence of expectoration. It can, as a rule, be provoked at will, by touching the irritable spot in the nose with a silver probe. Dr. Thrasher recited three cases illustrative of nasal cough from his private practice.

CASE I.—There were no subjective symptoms of nasal disease. The cough had been present for three months, and was not benefited by the usual cough mixtures. The lower turbinate was found to be hypertrophic, and touching it with a probe provoked violent coughing. The cautery was applied, and in three days the patient ceased to cough.

[1] Abstract of paper read before the Mississippi Valley Medical Society, Louisville, October, 1890.

CASE II.—A young lady had been coughing violently for three months. She referred the irritation to the throat, which had been penciled and sprayed, for some time with no relief. Touching the posterior extremities of either lower turbinate produced violent cough. Treatment as Case I, with good result in two months.

CASE III.—Cough had been present six months and was not benefited by constitutional or local treatment. The seat of the trouble was found to be in the left middle and right lower turbinate. Treatment similar to other cases was followed by cessation of cough within a month.

"A FEW 'POINTERS' FOR THE GENERAL PRACTITIONER."

By HERBERT A. STARKEY, M.D.,
HEGEWISCH, ILL.

A VERY valuable suggestion I received in the Windy City was in regard to the lightest kind of a fracture dressing. Plaster bandages are heavy and disagreeable to apply; the same can be said of starch and the others. Get the stuff called "wiggin," used by the fair sex to stiffen certain portions of their clothing. Make it into the necessary size bandages, and when needed soak in hot water and apply; in a short time you have a light, hard dressing, which can be covered with shellac, cut with a sharp knife, and laced as a corset or shoe.

We all have to throw a light into some cavity of the body at times, and the stronger the light the better, but the beautifully nickel-plated, double lens concentrators cost more than we, perhaps, can just now afford. So, until our cash account grows, we will take a common police dark lantern, cut the rim from top and bottom, solder a piece of reflector on the posterior wall and set it on any kind of a lamp, and if the chimney won't fit inside put it on top, and you have a good concentrator of rays, and one which you can throw in your bag to carry and use anywhere.

After you have turned the light from this down someone's throat they will remember that the baby has an earache, and as you will need something better than the paper cone to blow the necessary boric acid at the diseased part, we will manufacture an insufflator; take a hard rubber thermometer case and an atomizer bulb, cut the thermometer case in half, drill a hole in the small end, and at the other wind a piece of stiff paper tightly, letting the paper project about an inch beyond the tube; now take the other piece, open up the end and attach the atomizer bulb, cut the other end bias, making a lip with which to scoop up the powder; fit in the paper, squeeze the bulb, and you have quite a respectable powder blower.

One who is liable to get surgical cases should not be without a half dozen pairs of hæmostatic forceps ready to hand; but if we are not the possessors of these valuable inventions of Tait, we go to a furnishing store and get a card of the ordinary clips one finds on the anterior extremity of our suspenders and on sleeve holders; for ten cents you have a dozen pair of hæmostatic forceps that have held a femoral artery in several cases. They are not built on the antiseptic plan, but boil and soak them in carbolic acid, and the germs will be too ill to cause any trouble.

None of these ideas are original, but I have tried them all and found them good; for the last suggestion I am indebted to Dr. Hurd, of Jefferson Hospital, Philadelphia, who I have seen use the clips on several occasions in preference to the regular forceps.

Society Notes.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting, October 8, 1890.

The Vice-President, JOHN B. ROBERTS, M.D., in the Chair.

A REPORT OF INTERESTING AND IMPORTANT ABDOMINAL SECTIONS.

DR. MORDECAI PRICE submitted a paper with the above title.

Mrs. S., forty years old, suffering from chronic inflammatory pelvic trouble, probably the result of a badly treated abortion.

The law laid down by Mr. Tait, to finish an operation when once begun, at any cost, is unquestionably true so far as the patient is concerned; but the point to which I wish to call your attention, in reporting this case, is, should not the feelings and the anxiety of the operator in this desperate work receive some consideration?

The patient came to my office for an examination and relief. I found both sides diseased and greatly adherent, the uterus immovably fixed, much tenderness; unable to attend to her household duties, general condition miserable. An operation advised and consented to; weight of patient, probably two hundred pounds.

Operation.—Quite a good deal of hemorrhage in the abdominal wound, two and a half inches in length; everything adherent in the pelvis—bowels, bladder, uterus, and omentum, and I knew that to remove this diseased condition of the tubes and ovaries would require a long and tedious enucleation, involving great shock and loss of blood, and with the indorsement of my brother, who made a careful examination, I decided to remove the diseased parts. The enucleation required almost an hour for its completion, and the hemorrhage was terrible; the diseased parts tied away, all the large vessels secured, still the bleeding was very troublesome. Sponge-packing and warm irrigations were used to stop the blood, which seemed at the time to control it. Patient at this time was pulseless at the wrist, sighing respiration, and greatly shocked. Drainage tube placed, abdominal wound closed, and patient put to bed; but a great deal nearer dead than I would like to see another. It was some twelve hours before reaction was complete; during this time two ounces of pure arterial blood was removed through the drainage-tube per hour. At no time was the patient in a condition that I could reopen and use any means to stop the blood. As reaction slowly took place the hemorrhage decreased, and at the end of twenty-four hours the quantity was only about one-half ounce per hour, and slowly decreased until the end of the fourth day, when the drainage tube was removed. To know how I felt during that first twenty-four hours, I advise you not to experience it to find out. This patient went steadily on, and made a good recovery.

To have stopped anywhere during the enucleation and closed up the abdominal wound, would certainly have been attended by a fatal result.

Mr. S., Dr. Dundor's patient, sixty-eight years old, suffering from obstruction of the bowel from distention, the result of paralysis. There were inflammatory bands at the sigmoid, but not sufficient, I think, to be the cause of the trouble. On June 4th I was asked by Dr. Dundor to see the patient in consultation. Dr. Dundor had only just been called to attend the case; he had had two previous attacks almost identical with this one, though not so long nor so serious in character.

We found the patient, a man over six feet in height, lying on the broad of his back, with his abdomen distended almost to bursting, suffering great pain from the distention, no vomiting. He was taking at this time small doses of calomel; forcible injections had been used, but the bowel would retain but little fluid, showing the obstruction at the sigmoid.

This was the eighth day without a movement of the bowels. The patient's condition did not indicate an inflammatory condition. We considered it safer, owing to his present condition—no vomiting, pulse but little accelerated, temperature but little above normal—to wait rather than proceed with abdominal section. Epsom salts were ordered in one ounce doses, to be given every four hours until the bowels were moved or symptoms of more serious character made their appearance. Four ounces of salts were given before I next saw the patient.

Dr. Dundor was to see the patient early next morning and send me word as to his condition. He was detained with a serious case of labor, so we did not see our patient until the evening. I then asked my brother, Dr. Joseph Price, to see the case with us. He heartily abused me on the way to the patient's house for not operating when I first saw the patient. After a thorough examination, he agreed with us that it was better to wait even then for daylight, rather than operate in the dark. We left him, with the understanding that if there were no favorable change we were to be called at 5 o'clock in the morning, when I would do an abdominal section.

At 5 o'clock sharp I was notified by the messenger that the patient was rapidly growing worse, and wanted something done for his relief. At 6 o'clock, with the assistance of Dr. J. Price and Dr. Dundor, I opened the abdomen midway between the pubis and umbilicus, making an opening three inches in length. So great was the distention that the mere touch of the knife made a great gaping wound. On examination, the large intestine was found distended to the size of my thigh, the small intestine empty. After a short examination, finding we could make nothing out of the condition, the incision was enlarged, and the bowel brought out and an opening three-quarters of an inch made in it. Gas and feces were driven with great force through the window into the street. We removed a large, old-fashioned tin basinful of liquid feces, all the gas and all the contents of the bowel that we could remove, probably two gallons. The bowel was thoroughly washed and examined, the adhesions at the sigmoid were torn away, wound in bowel closed with fifteen Lembert sutures, and again thoroughly washed. The estimated length of colon when returned was ten feet. Patient put to bed in moderately good condition, suffering but little that day and night. On the following morning, at 9.30, I found him taking a bath in a bucketful of liquid feces, from his head to his heels; he was quite comfortable in every way, barring his filthy condition. I was delighted to see the salts having such a happy effect. I scarce need tell you that I cleaned him; both Dr. Dundor and myself had to continue to do so every day for a week. The salts taken previous to the operation unquestionably saved our patient. He went on without intermission to a rapid recovery.

I wish to call attention to the fact of the immediate closure of the intestinal wound. It must have been immediate, or there would have been leakage.

PAROVARIAN CYST STRANGULATED AFTER DELIVERY.

Mrs. W., confined July 18, patient of Dr. Hinkle. This tumor was known to exist prior to labor. No complications made their appearance until the third day after her delivery, when the patient, turning on her left side, felt the tumor move completely across the abdomen, and experienced severe pain. This pain did not decrease; her symptoms became more serious daily, and on the third day her condition became so alarming that her attending physician decided there was a strangulation of the tumor from twisting of the pedicle.

A consultation was decided upon, and Dr. Hinkle asked me to see the case with him. After examining the patient, I concurred in his diagnosis. A section was advised at once, and was promptly accepted by the patient and family.

The operation was performed at 4.30 A. M. The temperature was 99°, pulse 150. The temperature went up for forty-eight hours from normal to 103½°. The pulse continued also to increase, and about six hours before the section was done the temperature dropped to 99°, pulse 150—every indication of collapse. The operation was proceeded with at once; patient etherized, placed on the table, parts thoroughly cleansed, inch and a half incision. Black and discolored walls of tumor came at once to view; a knife had to be used before a trocar could be pushed through the walls of the tumor. About twelve or fourteen pounds of fluid were removed from the tumor, four complete turns of the tumor on its pedicle, the twisted portion including the ovary and tube, all of which were discolored and in a semi gangrenous condition down to and including a part of the cornua of the uterus. The ligatures included part of the cornua of the uterus. The tumor was cut away, peritoneum generally inflamed, thorough irrigation, glass drainage for twenty-four hours. This patient made a beautiful recovery in twenty-one days—was practically well in a week. Nursed her baby all the time but two days.

Mrs. W., aged thirty-six, married fourteen years; suffering with double pyosalpinx; probably a pint of pus in both tubes and peritoneum; a general peritonitis existing. One ovary was completely destroyed by an abscess, the other could not be found. General adhesions to bladder, pelvis, floor, bowels, and all surrounding structures. The enucleation was very difficult; both tubes completely removed with irrigation and glass drainage. The patient's history is an interesting one, having in the past six years suffered from an old-fashioned pelvic cellulitis or peritonitis with five different attacks, in four of which I attended her; and I have no doubt as to the cause of these attacks. She was suffering from chronic tubal trouble; cold or exposure increased the irritation of the tube. There was leakage, consequently a new attack of peritonitis. As long as the patient was in a fair condition the fluid was absorbed and she improved, and after weeks of suffering, and on one occasion months, she returned to a moderate state of health; but at no time was the uterus free, nor the ovaries and tubes movable. There was always great tenderness on pressure.

At the last attack the patient was in a septic condition, with general peritonitis and every indication of approaching death. She made a slow recovery, her septic condition greatly retarding it.

Discussion.—Dr. A. J. Downes: I had a case in the last four days which is somewhat similar to the case of obstruction reported by Dr. Price. In March last I operated on a woman weighing two hundred pounds, with thick abdominal walls. I closed the wound without drainage. She suffered with pain for ten days. All summer she suffered with constipation and intense pain after movement of the bowels, which was only secured by large doses of salines and magnesia. She wanted me to operate, and on Saturday I did so, and found the cæcum and the small intestine bound together, and the appendix between them, and all adherent to the right cornua of the uterus. In the four days prior to the operation she took eight bottles of magnesia and two ounces of salts. There was not complete obstruction, but the bands of adhesion were very firm. I think that this case should have been drained on account of the thick abdominal walls, which must have bled very freely. In the last operation I drained, and the patient had a natural movement of the bowels two days after the operation. She is doing very well. The appendix was four inches long, and inflamed, with many adhesions. I removed it; which, I think, was good surgery.

Dr. William S. Stewart: There is one point which Dr. Price emphasized that I think we should all consider, and that is, in every intricate case in which we have begun an operation, that we should not give it up half done. I had such an experience not long ago. A number of good operators who were present advised me to hurry up or the patient would die on the table. It was a case of degenerated ovary and abscess, with adhesions not only to the walls of the abdomen, but deep in the pelvis to the psoas muscle. There was no place where I could entirely remove the sac. The wall was so degenerated that it was torn in my efforts to remove it, and large quantities of pus escaped into the abdomen. Even before the operation was begun the patient seemed to be in a dying condition. I decided, however, to make an exploratory incision, and, finding such a serious condition of affairs, determined to continue the operation. I dissected away the wall of the abscess as cleanly and carefully as possible, and washed out the abdomen. Hypodermic injections of strychnine, digitalis, and stimulants were given, and when the patient was removed to the room her temperature was 96°. She, however, made a good recovery, and is well to-day.

In regard to drainage: In one case of extra-uterine pregnancy I was compelled to use drainage five days before I was satisfied that it was safe to remove the tube. The patient did well, and recovered.

In regard to operations during gestation, I wish to caution the society against hastily deciding on such operations. I remember one case when I was asked to be present at an operation where it was stated that the patient had a fibroid tumor. The woman was a former patient of mine, and before the operation I made an examination and advised her to postpone any operation for the present. At the end of a month she again called, and I suggested still further postponement. The operation was again indefinitely postponed, as the woman felt life in the tumor. It was a rare case of retroflexion with conception. I did not replace the uterus until labor set in, and delivered her successfully; and it is, I believe, the only case on record in which mother and child, under such conditions, were saved.

Dr. J. M. Baldy: My thoughts have wandered over quite a large field as Dr. Price has narrated his cases, and many interesting ones have occurred to me. This point of prolonged drainage after extra-uterine pregnancy: I have noticed, and have come to the conclusion, that drainage must be prolonged

in such cases, at least where the placenta has attached itself to the pelvic wall—as has been the rule in most of my cases. Looking at the condition of affairs in the pelvis, we can see why it is that prolonged drainage would be needed. The branches of placental tissue penetrate the pelvic wall, and much of this bleeding tissue must be left. We know how vascular placental tissue is, even in its earliest formation, and I think that we will find that all cases will require comparatively prolonged drainage.

The subject of unfinished operations is one of extreme importance to everybody in abdominal and pelvic surgery. I have often been tempted to give up an operation in the midst of it, leaving it half done. Unless the principle of always finishing what was begun had been thoroughly rooted in my mind, I should have fallen into that great error. After operation is begun, and hemorrhage started, it is folly to take the great risks of an unfinished operation. The chances are better by going on and enucleating the disease and getting a ligature around the base of the mass. It may sound rather reckless to say that one will not stop and leave an operation unfinished, but the time to hesitate is before beginning. The time to make up the mind in regard to the feasibility of finishing the operation is before one begins the enucleation. After the abdominal cavity is opened, exploration should be made and a fixed decision arrived at. If in any doubt as to the possibility of finishing the operation, it should not be begun. If begun, it should be finished. I can call to mind just now four unfinished operations, and all the patients succumbed. I should take large risks of the patient dying on the table rather than the still more dangerous risk of putting the patient back to bed with hemorrhage coming from I know not where.

The case of obstruction of the bowel was very interesting. These cases of obstruction are often difficult to deal with from a diagnostic point of view. It is often difficult to determine what we shall do, or if we shall do anything of a surgical nature. I recall the case of a colored girl twelve or fourteen years of age, which was under my care some years ago. She had obstruction of the bowels. One day she was better, and the next worse. She was up and down in the way with which you are all familiar, and I was uncertain whether to operate or not. By the time I had made up my mind to operate, the patient was dead. It was just as well that I did not operate in this case, for there was an immense amount of tubercular disease about the cæcum, and at the post-mortem the bowel ruptured at a point where it would have been impossible to have reached it or dealt with it in any way.

I have lost a case where obstruction of the bowel followed abdominal section. For four and a half days I tried to get the bowels open. The patient did not vomit a single time; she had a flat belly for two days. She took salts and calomel in large quantities, and retained them. The middle of the third day the abdomen began to distend. There was no discharge from the bowel. She was given repeated enematas ubsequently containing turpentine. A slight amount, ot fæcal matter was removed from the lower bowel. During this time the patient was apparently in good condition, with a pulse of from 80 to 90, and a temperature below 100°. There was, of course, colicky pain. At six o'clock on one evening the pulse rose to 100, and the temperature to 100°. By midnight the pulse was so rapid that it could not be counted, and the temperature was 103.5°, dropping in an hour to 97°, and the patient died before I could reach her when summoned. At the post-mortem, I found the descending colon completely collapsed from the splenic flexure to the sigmoid. The rest of the intestine, without exception, was distended with liquid contents and gas. I could find no cause for the obstruction. There was no kink, no volvulus or pressure.

Cysts complicating pregnancy should be dealt with as Dr. Price has suggested. I never had a large cyst in which the pedicle became twisted and the cyst became gangrenous at this time, but I have seen six or seven cysts in which inflammation has been set up at the time of the labor, and the woman had afterward suffered from severe puerperal trouble, and the cyst had become generally adherent, and for months and years had caused discomfort, and had subsequently to be removed; at the time of the operation considerable difficulty was experienced on account of the adhesions.

I think that most cases of pyosalpinx go through the course prescribed by Dr. Price, viz., repeated attacks of peritonitis. We cure the peritonitis, and the patient is relieved of her symptoms for a time, and we suppose she is cured. We have many such cases on record.

Dr. John C. DaCosta: I believe in the general rule of finishing an operation after you have begun it, but do not think that we should lay that down as a *cast iron rule*. As I speak, three cases occur to me which I feel sure would have died if I had persisted in continuing the operation. In one case I opened the abdomen and there was one mass of adhesions. It was almost impossible to distinguish anything. I tried to break up the adhesions, but found the mass could not be removed without probably killing the patient. The hemorrhage was severe and controlled with difficulty. It was finally stopped, the abdomen closed, and the patient put to bed. She made a rapid recovery. Although I did not get away the tubes and ovaries she is now comfortable and has menstruated without trouble. She suffers with neuralgic pains in the head, but the abdomen is free. If there is such a thing as "pus tubes" this undoubtedly was such a case, and from the history it was probable that the husband had something to do with it.

In the second case I could not make a clear diagnosis of the condition of the parts. I felt sure that the patient had sarcoma, and the question was, whether or not a pedicle could be found and the sarcoma removed. A sarcoma was found filling the entire pelvis without the possibility of making a pedicle anywhere. Had the operation been finished I should have had a bleeding surface as large as my hand, without the probability of stopping the hemorrhage, and we all know how sarcomas can bleed. I removed some thirty-five or forty pounds of fluid, and made her comfortable, and in ten days she was ready to go home. That woman will die in the course of six or eight months, but I think that she would have died on the table if I had persisted in the operation, and feel that I was right in not finishing it.

In a third case a woman came over two hundred miles to see me. I felt sure that she had a sarcoma. She had an indistinct scar on the abdomen, indicating that a former section had been made. I was, however, assured by the husband, who, I am sorry to say, is a physician, that such was not the case, but that the scars were the result of tappings. I did not believe him, but at his urgent request made an exploratory incision, and found a condition of affairs similar to that noted in the second case. I removed a large quantity of bloody fluid, and the woman was able to go home in a week. Two or three

days later the husband told me that a distinguished surgeon had made an exploratory incision some time previously, and had refused to go further. Here we have the authority of one distinguished man, who says, by his work, that it is not always wise to finish an operation.

In those cases where there is pus, or much blood, or even much serum, it is well to put in the draining-tube. There is no rule as to how long it should remain. You may take it out in twelve hours, or you may have to keep it in a week, or you may not need to use it at all; every patient is a law to herself.

Dr. William E. Ashton: I agree with the gentlemen who have preceded me, in regard to unfinished operations. I believe thoroughly in exploratory incisions. I think that we may have an exploratory incision without an operation. I do not think that it is necessary to go on with an operation because we have made an exploratory incision, but if we once so disturb the relations of the parts as to cause hemorrhage, we must continue. I recently had one case at the Philadelphia Hospital which illustrates this point. A woman had been sent to the medical ward for ascites, and had been tapped, but nothing but blood was removed. I may say here that I believe the time is coming when puncture for ascites will be a thing of the past. The patient was sent to my ward, and I made a careful examination and found a large mass completely filling the pelvis and extending up toward the umbilicus. There was some free fluid in the abdomen, which I thought was probably blood, and that she had an internal hemorrhage aggravated by the trocar. I opened the abdomen, and found it filled with blood. In my manipulations I found the hemorrhage increasing. There was carcinoma, and the only way to stop the hemorrhage was to enucleate and get a pedicle. It would not matter whether a bowel was torn or not in the removal, the only thing to do was to go ahead. That was her only chance. In another case I know of, an operation was not finished, and the patient died from the operation. In another case in which I assisted Dr. Parvin, where there was malignant disease of the ovary, there was a profuse hemorrhage; a rapid and complete removal resulted in the patient's recovery.

In regard to drainage, the majority of cases should be drained. In ectopic gestation drainage should be continued for a long time, for the parts are so destroyed by the growing ovum that there is a large amount of oozing and considerable débris to come away. There is no question in regard to the use of the drainage-tube in cases of pus tubes, and in any case where we have adhesions.

I agree with Dr. Price in regard to the operations on ovarian cysts. I think that it is absurd to allow an ovarian tumor to exist in a pregnant woman after it has been discovered. The time to operate is when the tumor is discovered; if found early so much the better.

Dr. A. B. Hirsh: As a matter of record, I wish to mention that in May I performed section on a woman seventy six years of age, for simple ovarian cyst, in which there was prompt recovery. There were no unusual features other than that the pedicle was probably an inch and a half in length. I had seen the patient only two weeks before the operation, she history being that of a slowly-growing mass, first discovered by the patient herself a year and a half previously. The operation was the classical one.

So far as drainage is concerned the pendulum seems to be swinging from the extreme of always at once closing the abdomen, to that of invariably using drainage. So far as opinion was voiced at Berlin this summer, it pointed to the universal employment of drainage. This being possibly a matter of change of fashion, the question arises as to whether the middle course would not be the one to select as we pick our cases.

Dr. Price: I gave Dr. Agnew a short history of the bowel case, and he told me that in the Wistar and Horner museums there was a large colon which had contained sixty-seven gallons of fluid. The man had died of ruptured bowel without operation.

In regard to securing a movement of the bowels, it is pretty well established that where you have peritonitis, or any condition of the bowel where peristalsis is interfered with, you have constipation from paralysis. This is most marked in cases of strangulation. In the earlier operations in these cases it was not much noticed because then the desire was to secure rest of the bowels. We now do not wish that, but begin the use of purgatives as soon as the patient rallies from the ether, and the stomach will retain medicine. I have had eight or nine cases of obstruction of the bowel, and all have recoved but one. In that case the patient was moribund when I saw him, and I operated only at the patient's urgent request. In that case there were eight inches of gangrenous intestine. In one case I had to give as much as six ounces of Epsom salts before securing a movement of the bowels, showing that the intestine was in a paralyzed condition.

There is no question as to the use of drainage. The law is, I believe, that a man should always drain when in doubt, and I always try to imagine myself in doubt. I have never seen a bad result from drainage. If you put in a drainage tube in a case where there has been adhesions, you will almost always find the belly flat; there will rarely be tympanites. A nurse who attends to these cases would far sooner take care of a case with drainage than of one without. It is folly to say that drainage is absolutely necessary in cases without adhesion. In such cases I see no reason for using a drainage-tube, although I do not believe it would do harm. Where there are no adhesions, where you can remove the cyst through a small incision, and where irrigation is not needed, I think that drainage is not called for. When in doubt always drain.

I entirely agree with Dr. Baldy that when one begins an operation he should finish it. The time to decide is when we have made the exploratory incision. I also heartily agree with Dr. Da Costa in leaving these cases of sarcoma alone. I have had one experience with sarcoma. I was called to see a man above Scranton. There were a dozen opinions that it was sarcoma. I begged the man not to have an operation. He insisted on an operation because he wanted to know what was the matter. I made the incision an inch above the upper border of the tumor, which involved the bladder, bowel, and omentum. The bleeding was excessive, and it was with the greatest difficulty that I could control it. I did not enter the peritoneal cavity within an inch of where the tumor was. If I had planted my knife over the tumor the man would never have found out what was the matter with him.

In regard to operation in apparent obstruction of the bowel, I think that we can establish a law. If we are called to a patient with apparent obstruction, with great distention and no movement probably for a week or even weeks, and that patient has no fever,

and a pulse that does not indicate any grave or serious lesion, we have no right to interfere with the knife. I was called to Chester county, to see, with Dr. Ewing, a lady sixty-five years of age, with obstruction of the bowels of eight days' standing. She had been treated with enemata and internal remedies without result. I examined her carefully and noted the stupid appearance of her face, the expression of absolute want of mental capacity which was present. There was freedom from pain and no fever. The bowels could be seen like knuckles of sausage under the skin. There was no positive indication of mechanical obstruction. I advised injection of warm solutions of Epsom salts, and the use of calomel. Before the trouble with the bowels had commenced, the woman had had a severe epileptic convulsion, and had several light attacks of the same character since. I have no doubt that the bowels were paralyzed owing to the condition of the spinal cord, or the brain, or some lesion in the abdomen of a nervous character. Under the treatment suggested she began to have free movements of the bowels, and they were thoroughly emptied. Where a man has a case of bowel trouble, or peritoneal trouble, with high temperature and thready pulse, and dose not at once proceed to use Epsom salts or other saline, provided vomiting does not occur, and attempt to get rid of the trouble, and failing in that does not go ahead and operate, does not do his duty to his patient. The moment that the patient begins to vomit anything resembling the contents of the bowel we should operate. I have never seen an abdomen opened in which something was not found to justify the operation.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

THE Sixteenth Annual Session of this association was held in Liederkranz Hall, Louisville, Ky., October 8, 9, and 10, 1890. The meeting was one of the largest and most successful of the many of that character in the history of the association. The physicians were entertained at a reception given by Drs. Yandell and Roberts; a reception at the Galt House, followed by an elegant banquet, and a number of private dinners and entertainments. The visiting ladies had several occasions arranged in their honor. Receptions, an interesting excursion to the Blind Asylum, where a concert was given by the pupils, gymnastic exercises, etc. The social arrangements were admirable, and the Kentucky belles captured more than one bachelor doctor.

The American Rhinological Association held its sessions October 6 and 7, and closed with a banquet to the members and a few invited guests.

The President of the M. V. M. A., Dr. Joseph Matthews, of Louisville, had been quite ill with blood poisoning from a wound, but was able to preside at most of the sessions; the Vice-President, Dr. C. F. Early, of Pennsylvania, filled the chair in his absence. The next meeting will be held at St. Louis the third Wednesday in October, 1891.

The officers elected for the coming year are: President, Dr. C. H. Hughes, St. Louis; First Vice-President, Dr. S. S. Thorn, Toledo; Second Vice-President, Dr. J. M. Hollister, Chicago; Secretary, Dr. E. S. McKee, Cincinnati; Treasurer, Dr. C. F. McGahan, Chattanooga. Chairman Committee of Arrangements, Dr. I. N. Love, St. Louis. Judicial Council, Dr. Murdock, Pennsylvania; Dr. H. N. Mudd, St. Louis; Dr. D. N. Griffiths, Springfield, Ill.; Dr. A. M. Owens, Indiana; Dr. Xenophon Scott, Ohio; Dr. Walker, Detroit; Dr. D. S. Reynolds, Louisville.

The address of Dr. John A. Wyeth on the Medical Student was a masterly effort, full of wit and wisdom. Prof. Wyeth graduated at Louisville, and the citizens vied with the profession to do him honor. His operation of bloodless amputation of the hip-joint was witnessed by a large number of medical men and students at the Medical Department of the University of Louisville.

Dr. Wyeth dwelt at length on the value of practical work in the acquisition of a knowledge of anatomy. He said he could shut his eyes and pick out the best men of the class by the sense of smell alone. It takes a sublime enthusiasm to enable one to forget the disgusting stench of decomposition in his efforts to master the magnificent labyrinth of bones and muscles, nerves, brain, arteries, veins, and organs which you have brought here with you to-night. He favored two sessions of purely clinical didactic teaching, and a third in which the instruction would be purely clinical. Too much time, he thought, was usually given to chemistry. For the practice of medicine, surgery, etc., a limited knowledge of the subject is all that is necessary, and that should be learned principally in the laboratory. Three months in active practical pharmacy, he thought, would be of immense benefit to the student. The nearest approach to the ideal clinical training he considered to be service as interne in a large, general hospital. The doctor, who had his first medical practice in the mountains of Alabama and the swamps of Arkansas, said that the Southern doctor could hold his own in the land of the golden calf. As proof he cited the names of Marion Sims, Emmett, Thomas, Metcalf, Bozeman, Polk, Wiley, Gibney, Gray, Dew.

The convention passed a unanimous vote, thanking its officers for their very efficient and successful work in bringing the meeting to so successful a termination.

THE PSYCHOPATHIC SEQUENCES OF HEREDITARY ALCOHOLIC ENTAILMENT

was the very interesting subject of a masterly paper read by Dr. C. H. Hughes, of St. Louis, President-elect. The doctor opened with the statement that nothing in neuropathology is plainer than the retrograde heredity of chronic alcoholics. It has been shown that the first generation shows immorality, alcoholic excess, and brutal degradation. The second one will usually show hereditary drunkenness, maniacal attacks, and general paralysis or some other similar psychopathic affection. The third generation may show sobriety; but instead of the transmitted drunkenness, the hereditary neuropathic perversion will probably reveal itself as Morel saw it, in hypochondria, mania, lypemania, and tendency to homicide and suicide; and we shall see in the fourth and after-coming generations feeble intelligence, stupidity, early insanity and the beginning of the end of family extinction. The long-continued use of alcohol as a beverage has the undoubted power of engendering neuropathic and psychopathic conditions directly in the individual, besides a great number of extra neural morbid conditions, as the oft-observed and long-doubted delirium tremens, epilepsy, insanity, imbecility, paralysis, and the neurotides of drunkards show the morbid entailments of alcoholic excess do not stop with the individual, as we have seen. They pass over in greater force to his descendants. This is the gospel of science: that the nerve mechanism which never escapes in the habitual or periodic excessive drinker, but more especially in the regular, so-called social drinker—who never sprees, though seldom refuses when asked to take a drink; who takes

his regular evening night-cap, and morning eye-opener, and tri-daily appetizer—is the vaso-motor system. This failure causes the pneumonic to die from an attack of lung fever of no greater severity of causation than that of which his non-drinking fellow in the next bed promptly recovers. We find among the drunkard's children one an idiot or imbecile, another erratic, moody, violent, visionary, melancholic or insane, epileptic, choreic, or suddenly criminal, especially among the latter offspring; while only the children born of his loins earlier in life, when alcoholic excess had made no organic impress upon him, are ordinarily healthy in mind and body.

Having made a preliminary review of what we know of the hereditary neurotic enthrallment of alcohol, he recorded an interesting hypothetical case, which he supposed to cover the facts in an important medico-legal record of detailed alcoholic disease, and crime perpetrated under its fatal sway. It is indeed a strange phenomenon of the human mind in its forensic relations, that an agent which the world recognizes and acknowledges as the parent of pauperism, insanity, and crime, and the chief direct or indirect populator of penal, eleemosynary, and correctional institutions, and the proven cause of so much disease, misery and death, should be held responsible to the extent it is before our judicial tribunals when the hapless, and often hopeless and helpless, victims of its vicious power are often arraigned to answer for crime committed through its influence over their involuntarily enslaved organisms—organisms often prenatally predestined to pathological perversion through the alcoholic excesses or other neuropathic disorders of ancestors, or through a precocious drink craving, however engendered, whether ancestrally or self-acquired, and prematurely and excessively indulged, to the harm of the delicate machinery of the brain. It is for humanity and law to decide in each individual instance, however, how far, on the one hand, inebriety should extenuate crime, and to what extent, on the other, it should punish the volition which might have engendered the disease.

The Polyclinic.

A LADY applied to Prof. Waugh for relief from a troublesome flow of saliva that had persisted, in spite of treatment, for several years. No cause could be found until it was noticed that she had her teeth filled—some with gold and others with amalgam. She was advised to have the latter removed, as it was possible that her trouble was due to galvanic action. The result is told by the patient in the following letter:

"I followed your advice and had the fillings removed from my teeth, and have been greatly benefited by it. There is now only a natural accumulation of saliva, and my general health is better, for I have not that constant feeling of nausea.

"I regret that I did not know of this sooner, as I had put up with the spitting so long, and taken so much worthless medicine, that I came to regard my case as hopeless. A. R."

"YORK, PA."

A CASE OF TETANY.—Kate B., age three, admitted August 25, 1890, suffering from tonic contraction of the muscles closing the lower jaw, and of the extensors of both lower extremities causing them to be quite rigid.

The child had been treated as an out-patient fourteen days previously for thread worms (oxyuris), these had been removed leaving the child "in perfect health" until August 23, 1890, when she fell on her knees in a playground, causing a very slight scratch on the left leg.

On the next day (24th) the child had diarrhœa—five motions, and on that evening the mother noticed that the teeth were firmly clenched.

On the 25th both legs suddenly became rigid and remained so until admission on that day.

The child was pale, fretful, teeth firmly clenched, thighs, legs, feet, and toes fully extended and quite rigid, head retracted, marked risus sardonicus when the child was touched anywhere. Temperature 98.4 F. It took milk through the clenched teeth with avidity. It was fed by nutrient enemata and by mouth with fluids, and remained in the same state until August 27.

On this day when the child was touched there was marked opisthotonos. The child was pale, and emaciating rapidly. Temperature 99.8. Urine normal. The rigidity was present when the child was asleep.

28th.—The teeth can now be slightly separated, and the right leg is a little relaxed, head retracted, neck muscles rigid. All muscles of the arms and trunk respond normally to weak faradic current, legs not influenced by strong current in any way. The child is very weak, and now will not swallow; nutrient enemata at once returned.

2 P. M.—Temperature 102.4.

The child gradually sank and died at 3 A. M., August 29. Temperature 105°2, and 45 minutes after death 105.8.

At the post mortem, ten hours after death, all muscles were relaxed. Heart, lungs, spleen, kidneys, and liver normal and healthy; intestines normal and healthy. The mesenteric glands were acutely inflamed and of a dark red color. Mesenteric veins much enlarged. No signs of peritonitis.

Spinal Cord.—There was excess of brown serous fluid in the subarachnoid space, clearly the result of hemorrhages. Brain, spinal cord, nerves and vessels of lower extremities also normal. Microscopic sections of the mesenteric glands showed masses of micrococci in the veins and many small hemorrhages. No tubercle bacilli.

Is this to be regarded as a case of tetanus or tetany?

Tetanus is rare between one and nine years of age, and nearly always begins in the jaws. Spasms and opisthotonos are common, but generally cease during sleep. Tetany generally begins in the arms or legs, is common from one to five years of age, is usually paroxysmal, and may persist during sleep, is rarely fatal; rickets is generally present. Upon the whole, therefore, the case would seem to have been one of modified tetany, fully accounted for by the mesenteric glands. The history of injury to the knee in the case is very slight, and it is difficult to understand what caused the mesenteric disturbance, which was evidently acute and not chronic in character.

The child was treated with potassi bromide and chloral, and inhalation of chloroform, but these had no effect upon the condition.—*Med. Press and Circular.*

FOR PIGMENTATION OF THE SKIN IN PREGNANCY.

℞.—Ol. theobromæ.

Ol. ricini	āā ʒijss.
Zinci oxid. pur	gr. v.
Hydrargyri oxid. flav	gr. ij.
Ess. rosæ	q. s.

M.—S. To be rubbed upon the affected parts twice a day.

—*Nouveaux Remèdes.*

The Times and Register

A Weekly Journal of Medicine and Surgery.

New York and Philadelphia, Nov. 8, 1890.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

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AN ALLEGED ABORTIONIST.

NOT long ago, in an editorial entitled "Quacks and Their Methods," we drew attention to the fact that in pursuance of our duties as a medium for the advance of the medical sciences, we would always denounce, and, as far as lay in our power, eradicate quackery and malpractice in the profession.

Following this policy, a member of our editorial staff proceeded to Easton, Pa., on September 10, not only to appear as one of the leading witnesses, but also to render all possible aid to the Commonwealth in the prosecution of Dr. Howard Fackenthal for criminal abortion.

Early in May, Dr. de Lano Eastlake—now a member of our editorial staff—while in Easton, learned of the unsavory reputation of Dr. Fackenthal, and, chagrined that a graduate of one of the leading medical schools in the United States should be dubbed as a professional abortionist, determined to prove or disprove these charges by a personal investigation. At the time Dr. Fackenthal was under bail, awaiting the investigation of the grand jury for a case of abortion.

Dr. Eastlake wrote a letter, under an assumed name, in which he posed as an applicant for a criminal abortion which he wanted performed upon a "lady friend." Dr. Fackenthal answered the letter, stating that "confidence begets confidence," and requesting a personal interview. In the interview which followed, Dr. Eastlake was most careful to maintain the character of a young man in trouble, and assumed a total ignorance of all medical subjects. To his unbounded surprise, Dr. Fackenthal confessed that he made criminal abortions a specialty, offered cheerfully to relieve the posthumous female in question; said that the operation was practically painless and devoid of danger, that he had had large experience in similar cases, and finally explained his *modus operandi*, by the aid of Gray's Anatomy and several instruments.

The instruments claimed to be used by him were the uterine sound and, for advanced cases, a uterine return canula. In occasioning an abortion, Dr. Fackenthal said that he did not rupture the membranes, but, unless the case presented unusual difficulties, was able to accomplish his purpose by merely passing a sound or the canula between the membranes and the uterine wall, and, by sweeping the instrument around, loosen sufficient connection between fetus and mother to "blight its life and cause it to mature and be expelled, just as a worm blights an apple and causes it to ripen and fall prematurely to the ground." These were the doctor's words. After such an operation, he said, an abortion would follow in about five days; no immediate results would occur, and the patient might even dance the same night with impunity.

Finally it was arranged that Dr. Eastlake—or, rather, Mr. Wm. Clark, as he had called himself—should bring the woman to Dr. Fackenthal's office, ostensibly alone; that the operation should then be performed, and that a few days later he (Mr. Clark) should take the woman to some cheap hotel in Philadelphia, register as man and wife, and as soon as labor began Dr. Fackenthal should be telegraphed for, and would "see her through all right." No nurse would be needed, and the patient might be about again in ten days.

Such was the substance of the interview which was published in full in the *Medical and Surgical Reporter* at the time. The admission which had thus been secured, Dr. Eastlake naturally felt convinced should be given to the Commonwealth, and he accordingly sought the lawyer who had been retained, or said he was retained by the prosecutor of the case that Dr. Fackenthal was then under bail for.

The outlines of this case are briefly as follows: A young woman, pretty but of low mental calibre, finding herself pregnant, confided in her lover, who promised to marry her if such were her condition, but requested her to submit to an examination. This she consented to. Accordingly the young man made arrangements with Dr. Fackenthal, who was his friend, and an appointment was made. The girl did not know where she was going until in front of the doctor's office. The young man then went into the office to see if the "coast was clear," and returned shortly for the young woman. Dr. Fackenthal was found awaiting them alone. An introduction followed, and the girl was immediately ushered alone into the doctor's private office.

Dr. Fackenthal asked her if she were in the "family way." She said yes. He then asked her if she would like to get rid of the child; to which she replied, yes, if it did not hurt much. Dr. Fackenthal said it would be no more painful than an ordinary confinement, that she would not get sick for a day or two, and that the operation would be comparatively painless. In other words he made use of the same reassuring words with which he had comforted "Mr. Clark." The girl was told to lie down on a lounge. Dr. Fackenthal then took from a closet a tubular speculum and a uterine sound, and introduced first the one instrument and then the other, and causing a "sharp cutting pain." He then told her that that would be all. A week followed, but no abortion;

and the man again took the girl to the doctor's. A similar operation was performed, and again both sound and speculum used. The next day the girl was taken with severe labor, and confessed to her mother that she had been to Dr. Fackenthal. The family physician was summoned, but seeing how matters stood, refused to touch the case, and Dr. Fackenthal was called in. He reassured the mother by saying that the same man who had brought her daughter to his office had brought two other girls, and he had gotten them well, and would also get her daughter well. As it was he managed to do this, but according to all accounts the girl nearly died. She aborted a ten weeks' fetus. Dr. Fackenthal was subsequently arrested by the girl's brother and the case brought before the 'Squire. Here the above story was told. The girl identified the speculum, but as no other instrument was shown her, and as she was greatly mortified and nervous, failed to mention the sound at the time.

The defense had their own stenographer, whose record says that the girl claimed the speculum to be the only instrument used, although the 'Squire's records show that this question was not asked. The prosecutor, who is a poor workingman, also found himself in possession of a lawyer who "volunteered" to take the case.

As had been said, Dr. Eastlake, realizing the value of his evidence, sought this lawyer, but again disguised himself as a detective in search of money, in order to ascertain the lawyer's true position in the case. This was soon evident. The learned gentleman said there was nothing in the case, that the prosecutors were poor, and that if he (Dr. Eastlake) wanted to make money out of the case he had better go to the defendant. It was quite plain that the lawyer was very much in sympathy with the defendant, while confessedly working without pay for the prosecution. So Dr. Eastlake sought the district attorney, who later laid the case before one of the judges of the court, the result being that the case was taken out of the lawyer's hands and given to Mr. Merrill, one of the most scholarly and conscientious members of the Easton bar.

At the grand jury's investigation a true bill was found, largely on the strength of Dr. Eastlake's evidence, and the case came up before Judge Schuyler, of Easton. Dr. Eastlake was called as a witness, but went also as representing THE TIMES AND REGISTER, and therefore ready to render the Commonwealth all possible assistance in convicting a man who, by his own confession, made a practice of committing one of the most revolting of crimes, by which not only one life is purposely taken, but another often lost, immorality upheld, and the profession degraded. In this work Dr. Eastlake was greatly aided by Dr. Edgar M. Green, of Easton, and to him our most sincere thanks are due.

The fetus was examined both microscopically and macroscopically, and gave evidence of ante-mortem wounds or punctures—such as could have been made by a sound—on the head, shoulder, and side. A bottle of bromide solution was analyzed by Dr. Green, and found to contain seven and one-half grains to the drachm. This had been given the patient after the first operation by Dr. Fackenthal.

In the trial the defense were able to produce physicians who swore that the uterine sound could not be used through a tubular speculum, and also that a fetus ten weeks old might be born alive, and, finally, that in the determination of pregnancy the speculum was a proper instrument to use. In a word, endeavored to show that, first, an abortion could not be produced by a uterine sound through a tubular speculum; second, that if a fetus could be born alive at ten weeks the ante-mortem wounds could have been made after its birth by the fingers or nails of the physician in charge; and, finally, that when using a speculum, Dr. Fackenthal was doing what he ought to do in determining pregnancy.

In contradiction to this assertion, it was shown by the Commonwealth, aided by Drs. Eastlake and Green, that a sound could produce abortion; that it could be used through a tubular speculum, and indeed that one of the proper uses of the tubular speculum was to aid the passage of the sound. In confirmation, Simpson's Diseases of Women, page 772; Simpson's Obstetrics and Gynecology, page 618; Hewitt's Diseases of Women, pp. 74, 75; Mundé on Minor Gynecology, pp. 93 and 95; Tidy's Legal Medicine, Vol. IV, page 106; Goodell's Gynecology, page 26, and other works were quoted. Regarding the use of the sound as a means of producing abortion, Tidy's Legal Medicine, pp. 99 and 102, and Cazeaux Theoretical and Practical Midwifery were quoted. Regarding the speculum as being unnecessary and useless in the determination of pregnancy, Hewitt, Mundé and Tidy were again quoted. The impossibility of a fetus ten weeks old being born alive was shown by Tidy's Legal Medicine, p. 31. Other points of medico-legal interest were also brought up by the defense and defeated by the prosecution.

The defense then endeavored to show that the child might be born and still remain connected with the placenta by the umbilicus; and that the injuries found could have been accidentally inflicted. Our representative showed by Gray's Anatomy that neither the true umbilicus nor the maternal placenta exists at the tenth week of pregnancy, and that, therefore, the proposition of the defense was worthless. Again the defense endeavored to prove that bromide in the dose given would tend to prevent an abortion, and again Dr. Eastlake cited Pepper's System of Medicine, page 511, in which it says that during the entire course of abortion bromide of potassium or some other nervine is indicated.

In the closing speeches the counsels for the defense spent most of their time in vituperating our representative, heaping insult upon insult upon him and in endeavoring to make him out all that is bad and vicious. The prosecution did not attempt to leave the main issue of the case, but dealt with the plain evidence. The girl had gone to Dr. Fackenthal's; an operation of some sort had been performed and instruments used; a miscarriage had been the result, ante-mortem injuries had been found on the fetus which could have been made by the uterine sound, and finally Dr. Fackenthal had displayed these self same

instruments to Dr. Eastlake, while he was acting the part of Mr. Clark, and had claimed to have frequently used them in causing abortions. Such briefly were the salient points of the evidence laid before the jury, and upon such evidence they returned a verdict of "not guilty."

Although in this case justice has apparently been defeated, still we trust that abortionists, in this State at least, will hesitate before continuing their criminal practice, knowing that THE TIMES AND REGISTER is always on the sharp lookout, and will spare no pains in checking crime in the profession.

Regarding our attitude in the case, we confess that we have been most gratified at the universal appreciation of our labors in behalf of justice. The press of Philadelphia and Easton have spoken in terms of unqualified praise about the evidence and expert testimony given by our representative, and even citizens of Easton have both publicly, through the press, and privately, expressed their appreciation.

For these courtesies we are most grateful; sincere appreciation is always gratifying, and we can, in reply, only state our readiness to do any service by which we may uphold in the profession that which is honest, that which is just, that which is true, and that which is of good report; so that our lay brethren, as well as the profession, may profit by our labors.

BERMUDA.

IN a short time the rain and bleak winds of autumn will be upon us, and physicians will be confronted once more with the old but never satisfactorily-answered question, "What shall we do with our patients?" Knowing this, we do not think a few words about Bermuda will be amiss.

Among the visitors who at present frequent the Islands are a large number who will tell you they have come here to recover their health; yet, from a spectator's point of view, they present the appearonce of as healthy an aggregation of humanity as can be found anywhere. In addition to these, there is a generous sprinkling of pleasure-seekers and globe-trotters, thus placing invalids among cheerful company and doing much to divert their minds, which is an undoubted advantage.

Heretofore, when the bleak winds of winter came on, the South has hospitably opened its arms to give shelter to our invalids. Florida, the spot most favored, is unfortunately subjected to the ravages of yellow fever, and the profession has had its attention directed to Texas and California as possible alternatives, neglecting to recognize the claims of the beautiful summer islands whose proximity alone should attract their attention.

The trip takes but sixty hours from New York, and is accomplished under most agreeable circumstances. The accommodations afforded by the steamers of the Quebec Steamship Co. are all that can be desired. They are safe, comfortable, and well managed.

The climate, like all semi-tropical resorts, has its variations. The changes recorded by the thermometer are so small, however, in comparison to those we experience in the North and West, that they pass entirely unnoticed after one has become acclimated. The worst evil which winter entails is rain, and even then it is rarely more than a hard shower. Several consecutive days of rain, as we have so often experienced in the last few years, is of rare occurrence.

Moreover, the rain causes but little discomfort, on account of the coral formation of the islands, which absorbs the water with sponge-like rapidity.

During the past ten years the average minimum temperature at night, or in shade, from December to May, was from 55° to 65° F.; while the average maximum temperature in the same time was from 68° to 77° F. The highest temperature reached during the same period was 80°, which is unusual.

The record of the winter of 1889 and 1890 shows the following temperatures:

	Highest.	Lowest.	Mean.
December	73	58	65.27
January	71.5	52	64.03
February	72	49	63.88

In February the thermometer fell to 49° at 10 P. M. This was the coldest night of the winter, and those well posted say that it was the lowest they have ever known the thermometer to register.

Bermuda is situated in the 32d parallel of latitude, and it is a mistake to suppose that the islands are thoroughly tropical either in appearance or climate. The atmosphere is genial and pleasant.

The barometer usually registers from 30 to 30.7, and rarely, even during a storm, falls to 29. Competent resident physicians claim that the climate is beneficial for the following diseases: (1) Nervous prostration. (2) Genito-urinary troubles. (3) Chronic rheumatism and gout. (4) Dyspepsia. (5) Convalescence from acute or other affections.

There are numerous comfortable hotels and boarding-houses where the prices are reasonable, besides several large and luxurious hotels where charges are, of course, much greater.

Bermuda is a charming place at all seasons, and is exempt from the ennui of many sub-tropical retreats. The pastimes indulged in by the Bermudians include almost every kind of out-door sports, from tennis to yachting. Besides there is excellent sea-bathing all the year around, the water being often warmer than the air. Riding and driving are the amusements most indulged in. The perfect roads and low charges by the liverymen have done very much to popularize them. With regard to the novel scenic attractions, there are but few Northerners who will not be enchanted with the diverse effects. There are numerous points from which fine views can be had. One of the most beautiful and striking sights is the Easter lily fields, whose crop adorns many of our churches on Easter day.

The change from a temperature which fluctuates 40° and 50° in a day; the invigorating atmosphere; the delightful sociability of the place; the absence of protracted rain, and the novel scenery, both landscape and marine, all contribute to assure the future of this spot of concentrated loveliness as one of the most popular sanitariums of America.

Annotations.

IN the *New York Medical Times* we find a paper presented by W. M. Decker, M.D., to the New York Homœopathic State Society, entitled Some Therapeutic Principles, Now and Previously Held by the New School of Medicine, which are Unsound. The article concludes as follows:

The following resolutions offered at the conclusion of my paper were tabled, the society thereby putting itself on record as not ready to denounce these untenable theories of Hahnemann:

Resolved, That in the opinion of this society the theory of potentiation of drugs, as taught by Hahnemann in the "Organon" and in his other writings, that is, the doctrine that the more drugs are attenuated by successive trituration, or the more they are diluted or succussed, the more their power and effectiveness is increased, is hereby declared unsound and unreasonable in principle, except the fact that division of drug matter is accomplished.

Resolved, That all symptoms attributed to provings with high potencies are of doubtful reliability, and therefore they are not trustworthy guides in practice.

Resolved, That, in the opinion of this society, the theory of the psoric origin of chronic diseases, as set forth by Hahnemann in the "Organon" and in his other writings, is erroneous; and, therefore, as a basis for treatment, it is misleading.

Resolved. That, in order to prepare for intelligent action on the foregoing resolutions at the next annual meeting of this society, the bureau of Materia Medica is hereby authorized to compile and issue an abstract of its report for distribution to the members of this society.

A. LAPTHORN SMITH calls attention, in the *Canada Medical Record*, to the absorption of drugs from the vagina. He has noted this when using iodine, iodoform, and corrosive sublimate. With the latter, the post-partum introduction of a pint of 1 to 1,000 solution was followed by sudden diarrhœa, collapse, and suppression of urine. He inclines to the belief that this absorption takes place even when the membrane is unbroken. He says:

"I have now been employing the local administration of bichloride of mercury in doses of one-tenth of a grain every three or four days, on a boro glyceride tampon, during the last two years, about five hundred times in about fifty cases of vaginitis, endometritis, salpingitis, ovaritis, and pelvic peritonitis, and I feel sure the duration of treatment, before relief has been obtained, has been very much less than was the case before I adopted this method. Exactly how much of my success is due to the bichloride alone, I am unable to say, for the simple reason that, at one time or another of the treatment, in every case, I employed other remedies and measures in addition to it. One of my reasons for attaching so much value to the bichloride of mercury employed in this way is, that nearly every one of the diseases above mentioned is due more or less directly to septic absorption, and that the more or less constant production of septic matter is necessary to keep up the disease."

AFTER laughing at Chinese warriors for several centuries for their use of stinkpots as weapons in battle, Christendom has suddenly awakened to the fact that there may be something in the idea. "In a sham fight at Portsmouth an advancing column was so affected by the fumes of the smoke-ball, which was used to raise a cloud of impenetrable obscurity under which they could advance, that the men had to keep their hands to their noses to avoid suffocation. It is now proposed that the smoke-ball shall receive a further development. It has occurred to some military men that instead of half suffocating their own troops it would be better to follow the example of the Chinese pirates with their stinkpots, and asphyxiate the enemy. A Vienna scientist has accordingly invented a bomb of such power and virulence that every one who is within a certain radius of it when it explodes is rendered unconscious. Devices such as these would soon modify the art of war, and probably the next development will be an anti-asphyxiating bomb whose fumes will neutralize those of the other. It is said that many years ago a scheme based on the throwing of poisonous gases over a tract of country was put before the war office in England for the purpose of devastating the country in the face of an invading army, but the agency employed was so terrible in its effects that it was not made public and was consigned to the secret records of the war office."—*Chicago Daily News.*

TREATMENT OF TYPHOID FEVER.

IRVIN, in the *American Practitioner and News*, contributes a paper on typhoid fever, the summary to which we quote as an example of the extreme slowness with which new ideas penetrate the professional mind. Scarcely one of his propositions is tenable, and the resort to opium for every emergency reads like one of the "Tales of a Grandfather." We quote:

1. There is no medical treatment for an uncomplicated case of typhoid fever.

2. Diet and stimulants carefully regulated to suit the case, and good nursing, fulfill all the indications.

3. The fever is best controlled by frequent sponge baths of tepid water and alcohol, and the internal use of stimulants and opium.

4. Feeble heart and prostration from hemorrhage or diarrhœa are relieved by opium, stimulants, belladonna, and oxygen gas.

5. Pneumonitis and bronchitis are not influenced by special medication. Food and stimulants, with opium to relieve cough and pain, and quinine in tonic doses may be given.

6. Hemorrhage of the bowels requires the free internal use of opium only.

7. Perforation of the bowels is only successfully treated by the use of opium.

8. Peritonitis requires the use of opium in repeated doses.

9. Tympanites is most successfully relieved by the use of opium internally three or four times daily, with turpentine applied to the abdomen.

10. Diarrhœa is controlled by opium and the regulation of food.

11. Insomnia yields best to the use of opium; where this drug is not well borne codeine paraldehyde or urethan may be given.

12. Nephritis should be poulticed locally and opium given internally to relieve pain.

13. Constipation is best relieved by mild laxatives and enemata.

Retention of urine requires the use of the catheter only.

TEXT-BOOKS ON OBSTETRICS.

"OF making of books there is no end"—no doubt more applicable at the present time than when first uttered. Authors appear one after another in such rapid succession that neither student nor physician can find time for the careful perusal that it is expected will be given the various works.

From the necessities of the case all are characterized to a large extent by lack of originality, excepting in general arrangement and expression, being more or less compilations and transpositions of what has been already written.

Of the elaborate works on Obstetrics at the present time, that of Cazeaux and Tarnier is perhaps the most complete, and is well worth the student's leisure hours. As a work of reference Edgar's edition of Winckel is excellent. The works of Parvin and Lusk are useful to students and practitioners. Galabin lacks systematic arrangement, but in other respects is a good text-book.

For the student Playfair will be found to give still most satisfaction, owing to the systematic arrangement of its subject-matter and conciseness of statement. Among the smaller works Stewart's Synopsis is the most complete hand-book of reference for student's use.

It would seem that the time has about come when instructors and authors should form an association which might appoint from its number various capable members, eminent specialists and talented writers, who shall be the authors of the recognized text-books of the future. Their first work should be accurate compilations of the knowledge which exists, but is to some extent lost either by scattering throughout various works or by the confusing want of uniformity in nomenclature, classifications, measurements, etc. From time to time the needed revisions could be made, and the newer ideas and later discoveries incorporated.

The great number of text-books on each subject published at the present time adds undoubtedly to the prices of all works, as each new one meeting with favor interferes more or less with the sale of others, and no sooner is one book recommended to the student and secured by him than another appears and claims his attention.

The enormous expense incurred by the public schools from year to year through the frequent changes of text-books is a familiar instance of this, in some measure at least, unnecessary outlay.

Letters to the Editor.

PIRATICAL PUBLISHERS.

THERE is probably nothing which excites greater indignation amongst literary men than the unauthorized reproduction of their works.

May I beg your assistance in exposing a gross case of publisher's piracy, of which I have the misfortune to be one of the victims?

In November last I published here and in London a book on the Treatment of Chronic Bronchitis, the result of ten years pretty hard work at the Westminster Hospital. I printed it at my own cost, and went to considerable expense in the matter of illustrations. I made a satisfactory arrangement with my old friends, Messrs. P. Blakiston, Son & Co., of Philadelphia, for the issue of an American edition, which appeared in due course. I have just heard from them that it has been "pirated," I believe that is the polite expression, by Messrs. Wm. Wood & Co., of New York, who have reprinted it not only without asking my permission, but without communicating with either my American or English publishers. It appears that there are now firms in New York who appropriate the property of their trade colleagues with as little compunction as they do that of British authors. This is certainly a new departure in journalism, and one which should be more widely known.

On looking over Messrs. Wood & Co.'s list of recent publications I came across the names of several of our best known English writers, and I was anxious to learn how they had fared. I accordingly placed myself in communication with about a dozen of them, and the result has been a storm of indignant letters; the authors, one and all, complaining that their works had been disgracefully pirated.

Sir Henry Thompson says: "I had not heard of any reproduction of any work of mine by Messrs. Wood & Co., of New York, until you named it."

Mr. Bryant says: "I had no idea that my book had been reprinted in America. It has certainly been done without my permission."

Dr. Dickinson says: "The information in your letter that Messrs. Wood have reprinted my lecture on the Tongue is new to me. They did the same for my book on Urinary Diseases. I have of course given no permission."

Dr. George Harby says: "I am grieved to find that Wood & Co. are among the publishing pirates, and am surprised to learn that they are about publishing some of my writings."

Mr. Jonathan Hutchinson says: "I certainly never gave any permission to Messrs. Wood & Co. to reprint my Pedigree of Disease. In a recent Atlas of Skin Diseases a large portion of the plates are mine without, so far as I can find, a single word of recognition."

Mr. Richardson says: "Wood & Co., of New York, not only pirated my entire essay, but did so in face of my protest."

I have received similar communications from Mr. Keetley, Mr. Mark Hovell, Dr. Simon, of Birmingham; Dr. Sinclair, of Manchester; Dr. Whittle, of Brighton; Dr. Theis, Dr. Lloyd Tuckey, and many others.

The only exception appears to be in the case of Dr. Currie, of London, who states he was offered a small percentage on the sale of the book, but adds significantly that up to the present he has not received it.

There is, I understand, an impression in America that Messrs. Wood & Co. pay the authors whose works they appropriate, but I cannot find that there is any foundation for this belief. I have talked the matter over with many of my American friends—authors and others—they are naturally indignant at the treatment we have received. I have always met with such kindness and courtesy from my colleagues on both sides of the Atlantic that I hope they will assist me in exposing such unworthy tactics. I am told that there are English publishers who pirate the works of American writers, and, if this is the case, I trust no diffidence will be felt in mentioning their names. I for one have no sympathy with the wrong-doers.

There is, unfortunately, at present no International Copyright Law, and presumably we have no legal redress, but a little wholesome exposure may serve to bring Messrs. Wood & Co. and their friends to their senses, and make them understand that there is such a thing as fair dealing, and that a departure from the recognized rules of commercial integrity does not pay in the long run.

WILLIAM MURRELL.
WEYMOUTH STREET, Portland Place, London, England.

MUCH interesting matter may be found in this weeks' advertising pages.

Cincinnati Letter.

THE Cincinnati delegation to the Mississippi Valley Medical Association was the largest and most numerously represented on the programme of any of the cities represented at Louisville. They all seem to be quite well pleased with what they heard, saw, and tasted in the Kentucky metropolis. Those who did not get to go were great losers.

Dr. B. Knox Ratchford has returned from Berlin where he has been spending some months paying special attention to pediatrics.

The many friends of Dr. Robert Bartholow in this city, hear with much regret the report of his ill health and retirement.

The South Western Ohio Medical Society had the good sense to adopt a constitution and by-laws modeled after that of the Mississippi Valley Medical Association, thus excluding medical politics, one of the greatest clogs to medical science.

Dr. W. W. Dawson has been suffering for some time a second attack of la grippe, which his many admirers deeply regret.

One of Cincinnati's batchelor doctors could scarcely tear himself away from Louisville's fair ones, and has the credit of being the last one home. He said he was making investigations as to the prevention of myopia.

Dr. J. B. Cromly will soon remove to New York, where he will practice in the future.

Dr. J. C. McMechan is responsible for an interesting story on cremation. The vessel was not quite large enough to hold the remains of his patient, and the devoted wife, not wishing to waste any of her beloved's ashes, placed the rest in an unused pepper-box. One day the cook, in a flurry preparing dinner, found the pepper-box and peppered the roast beef. As something seemed wanting about the beef the mistress of the house inquired if it had been peppered. The cook insisted that it had, and to prove it produced the identical pepper-box, which contained a part of the ashes of the departed head of the house. Which part the doctor does not say.

The South Western Ohio Medical Society met in its regular semi-annual session at the Burnet House, Cincinnati, October 16 and 17, 1890, with the President, Dr. J. C. Reeves, of Dayton, in the chair, and the Secretary, Dr. Willis W. Hall, of Springfield, at the desk. The address of welcome was made by Dr. J. T. Whittaker, of Cincinnati. The doctor welcomed the visiting doctors most warmly, then went into the consideration of two diseases which especially merited consideration, to speak only from the standpoint of internal medicine, one local, the other general, both attended with great mortality, as the most frequently encountered, and both as a result of recent study entirely preventable, viz.: typhoid fever and tuberculosis.

Typhoid fever we now know to arise wholly and exclusively from drinking water contaminated with the feces of typhoid fever patients. We get it plainly in our city from infected river water, and the lesson we are taught every year cries louder than the water famine of a single year for reformation in this regard. Nature has kindly lifted for us, in our immediate vicinity, great natural basins for reservoirs, on the adjoining hills of Kentucky, above cities which are in reality but suburbs of our own, across a river which will soon be bridged at every block—and all that is needed is pumping stations higher up the river at sources of more pure supply. From large receiving basins on the Kentucky shore, wherein the water might remain a week or more to settle, the streams may be conducted over a viaduct to our present basins as centers of distribution.

The typhoid bacillus does not live long in fresh water—according to recent investigations, not longer than a week—and whatever germs of disease are present would gravitate to the bottom of the lake, if quiescent, to be removed with other refuse when the basin is cleared out and cleaned. The objection of the ward politician that our sister State might some day be an enemy, is easily met by the preservation of our present works for such a dire emergency.

Tuberculosis we have always with us as a result, almost wholly and solely, of contamination of the air by dried, disseminated sputum. The spectre of heredity has now disappeared entirely from the etiology of this disease, with the observation that the children of tuberculous parents, removed from danger of infection, entirely escape the disease. Advanced tuberculosis in parents never produces the disease in the new-born, for the simple reason that the essential elements of a fecundation never show or contain the tubercle bacillus. This disease is not congenital, but contracted, acquired after birth by breathing in an infected air. All that is necessary to prevent the dissemination of this disease is to keep the sputum moist, to use cuspidors and cups half filled with water, to be emptied daily in drains, which, in turn, empty into running streams.

No particulate bodies can possibly arise from moist surfaces. This particular law simply contains all the essence of prevention in the case of this disease.

The doctor next described the various agents used to limit the growth of the bacillus in the body of man, and made mention of the recent discoveries of Koch with the cyanide of gold, and more especially with the salts of cobalt, which would prevent the inoculation of the extremely sensitive guinea-pig, or check the advance of the disease in animals inoculated before. Every clinician and every pathologist believed that the time was near at hand when some agent would be found to destroy, or more especially to check, the growth of the tubercle bacillus in the body, without damage to the cells and tissues of the body. The doctor did not believe the recent telegraphic dispatches to the effect that Koch had abandoned his experiments concerning the cure of tuberculosis.

Peritonitis was the subject of a paper by Dr. Dan'l Millikin, of Hamilton. The doctor laid special stress on the symptoms, a very pointed one being pain. The patient lies on his back, with knees elevated, and soles of feet applied to the bed. This is done to prevent the bedding from touching the exquisitely tender abdomen. Abdominal respiration is abandoned, and shallow respirations take their place. If there be any cough the patient makes every effort to suppress it, on account of the severe pain it causes. Vomiting is an early symptom, and food is violently ejected. Diarrhœa is rare, but constipation frequent. The abdomen is retracted in the earliest stages. In the later stages the intestines become distended, and the abdominal muscles yield. The pulse is frequent and small. Respiration runs as high as 40 per minute. Average temperature runs as high as 101.5° F. The countenance is anxious like a wild animal in a trap. The mind remains clear throughout the disease. The pallor is a peculiar feature, and death comes with decline of pulse and temperature. The doctor spoke of the great variation in the symptoms of the disease, and remarked that some cases were so

masked that they went on to death, and the disease was only diagnosed on the post-mortem table.

The treatment of the insane was the subject of a paper by Dr. A. B. Richardson. He advised the establishing of a hospital for the treatment of the curable insane of the country, to be under the care of a special staff, also a consulting staff of physicians and surgeons. He urged the better teaching of students with regard to the treatment of insanity.

The Surgical Treatment of Epilepsy was discussed by Dr. B. M. Ricketts, of Cincinnati.

Headaches by Dr. Philip Zanuer, of Cincinnati.

Chloroform was the subject treated by Dr. H. N. Brown, of Hillsboro. He considered this a safe anæsthetic, but its safety lay in its administration.

Sympathetic Ophthalmia was the subject treated of by Dr. S. C. Ayres, of Cincinnati.

Hysterical Paraplegia in a Child was the subject of a paper by Dr. S. P. Deah, of Potsdam.

Cæsarian Section, with report of case, by Dr. J. N. Bartholomew, Trenton.

Cardiac Diseases in Soldiers, Dr. F. H. Patton, National Military Home, Dayton.

Delayed Operations in Ovariotomy was the subject treated by Dr. Rufus B. Hall, Cincinnati.

Chloroform and the Hyderabad Commission was the subject of the President's address, by Dr. J. C. Reeve, of Dayton, a national authority on anæsthetics. He handled the Commission, their sins of omission as well as commission, without gloves; denying, and apparently proving his denial of many of the points of their report.

The officers of the society elected were as follows: President, Dr. Dan'l Millikin, of Hamilton; Vice-Presidents, Drs. S. P. Deah, of Potsdam, and R. T. Trimble, of New Vienna, Vernon; Secretary and Treasurer, Dr. W. W. Hall, Springfield. Next place of meeting, Hamilton, April, 1891.

The society adopted a constitution and by-laws copied largely from those of the Mississippi Valley Medical Association.

Book Notices.

THE MEDICAL STUDENT'S MANUAL OF CHEMISTRY. By R. A. WITTHAUS, A.M., M.D. Third edition. New York: William Wood & Co., 1890.

The advances in chemistry are exemplified in the necessity for a third edition of this book within seven years. In the present edition the sections on chemical physics and mineral chemistry contain much new material. The carbon compounds have also required special attention; this chapter having been largely rewritten. The book now forms a handsome volume of 528 pages, with a strong and durable binding.

A TREATISE ON THE DISEASES OF INFANCY AND CHILDHOOD. By J. LEWIS SMITH, M.D. Seventh edition, thoroughly revised. With fifty-one illustrations. Philadelphia: Lea Brothers & Co., 1890. Cloth, 8vo., pp. 900.

It has been four years since the sixth edition of Dr. Smith's work was issued, and in that interval "many additional facts have come to light relating to the etiology, nature and treatment of the diseases of children." In all the departments the work shows evidences of revision done with Dr. Smith's conscientious thoroughness. The author is at all times the tried and trusty practitioner; judicial rather than enthusiastic, and one feels that his approval is not given without being earned. We look upon this as the best of our American works upon children's diseases; and as such recommend it to our readers.

WOOD'S MEDICAL AND SURGICAL MONOGRAPH. Vol. VIII, No. 1. October, 1890.

Contents: Suppuration and Septic Diseases, by W. Watson Cheyne, M.D.

Pharmacopœia for Diseases of the Skin, by James Startin.

The Nasal Neuroses, by Granville Macdonald, M.D.

Artificial Respiration: The Theory and Practice, by Benj. W. Richardson, M.D.

The Newborn Infant: Its Physiology, Hygiene, and Nourishment, by Dr. A. Auvard.

The Urine in Neurotic Diseases, by Dr. Alexander Peyer.

THE LATIN GRAMMAR OF PHARMACY AND MEDICINE. By D. H. ROBINSON, Ph.D., and L. E. SAYRE, Ph.G. Phila.: P. Blakiston, Son & Co., 1890. Cloth, 12mo, pp. 271.

Our constant readers will have noted how frequently we have had occasion to criticise the Latin of prescriptions, in books noticed. How bad is the Latin generally used by physicians, no man can conceive, unless he has inspected the prescription files of a pharmacy. While a book like this will not make a scholar of one who has no previous knowledge of Latin, it will at least enable him to use correctly what he requires in reading or writing prescriptions. The difference between this and any ordinary Latin grammar is that in the book before us the examples are words used in medicine; such as tussis, sulphas, etc.; so that the student learns a little of his own spec al profession with his Latin. A short vocabulary is attached. Designed for students who wish to get up their Latin in a hurry, it accomplishes its purpose admirably.

A TEXT-BOOK OF COMPARATIVE PHYSIOLOGY, for Students and Practitioners of Comparative (Veterinary) Medicine. By WESLEY MILLS, M.A., M.D., D.V.S. With 476 Illustrations. New York: D. Appleton & Co., 1890. Cloth, pp. 636.

As teacher and practitioner, Dr. Mills has earned the right of having and expressing views upon his specialty. Works on equine physiology are rare; since there are but two others printed in English, and those only appeared within the last year. And yet, a knowledge of this subject appeals to man in his most sensitive spot—the pocket. It seems singular, when one thinks of the vast interests involved in the breeding and care of stock, that veterinary students should be compelled to view their subject through the medium of works on human physiology alone. The present work treats of general biology, reproduction, development of the embryo, chemistry of the body, the blood, contractile tissue, muscle physiology, nervous system, circulation, digestion, respiration, the skin, the kidney, metabolism of the body, the spinal cord, brain, special senses, voice, and locomotion. The cuts are excellent and plentiful; the book will be found of value by all who desire a concise manual of comparative physiology.

Pamphlets.

Proceedings of the National Conference of State Boards of Health at the Seventh Annual Meeting held at Nashville, Tennessee, May 19–20, 1890. Published for the State Board of Health of Pennsylvania.

Functional Albuminuria; or, Albuminuria in Persons Apparently Healthy. Read before the American Medical Association, by William B. Davis, A.M., M.D., of Cincinnati.

Annual Report of the Health Commissioner of St. Louis, Missouri, for the fiscal year ending April 7, 1890.

A Study of the Anæsthesias of Hysteria, by Charles L. Dana, M.D. From *The American Journal of the Medical Sciences.*

The Medical Digest.

FRENCH NOTES.

By A. E. Roussel, M.D.

Surgery of the Nervous Centers.—(Berlin Congress; M. Horsley, of London).—Operative intervention is indicated in each case when we find ourselves in the presence of a traumatic lesion involving the brain, principally in young subjects, if the lesion does not cause epilepsy or mania it may very well cause arrest of development. In cerebral hemorrhage an immediate intervention may prevent thrombosis and its consecutive paralysis. This intervention consists in the ligature of the primitive carotid. The author has performed this operation twenty times, and his experimental researches on the subject have proved to him that this ligation completely arrests the hemorrhage in the region affected. Trepanation in cases of meningitis has not been followed with success in pachymeningitis; excision of fragments of the thickened dura-mater may be productive of some results, but it is especially in cases of localized diseases, tumors, Jacksonian epilepsy, that surgical treatment promptly applied has produced good results. Cerebral gummata are, according to the author, subject to the same treatment, specific treatment being insufficient to cause their total disappearance.

The mortality of trepanation is 20 per cent. Trepanation of the vertebral column, indicated in puncture of the vertebræ with symptoms of compression of the cord, is a difficult operation, offering but few chances of success.—*Revue de Therapeutique.*

Identity of Human and Animal Diphtheria.—M. Delthil presents the following conclusions: All goes, therefore, to prove that the diphtheria of animals, whether coming from mammals or more especially from the ornithological race, is analogous to that of man, that it is transmissible from animal to man and *vice versa.* It results, therefore, that we should carefully watch, in point of view of contagion, the animals of our stables and yards, as well as inspect the markets.

This opinion is becoming more generally accepted day by day in France, in Germany, in Italy and in Switzerland.—*La Médicine Moderne.*

Epilepsy of Nine Months' Duration Following Dental Caries.—M. Bakowski reports the following cure of reflex epilepsy: He was called on the 15th of May, 1889, to attend a young girl of sixteen years whom he found in an epileptiform attack. Notwithstanding varied treatments (bromide of potassium, quinine, arsenic), the attacks continued; they were accompanied by loss of consciousness and were repeated several times a day. At the end of the month of December, 1889, M. Bakowski had his attention attracted to the teeth of his patient. The first upper molar on the right and the first inferior molar on the left were decayed. The patient did not suffer from the above; but immediately before each attack she experienced a sort of a disagreeable sensation (*aura epileptica*). These teeth were removed, and since this time the attacks have no longer returned. This cure has now continued for six months.
—*La Bulletin Médical.*

Correlations of the Sexual Functions and Mental Disorders of Women.—Barnes (*Med. Press*) thus concludes a paper on this subject:

I may conclude this imperfect presentment of a great theme by stating what seems to be the logical sequence of the facts and arguments set forth.

The proposition I present is, indeed, self-evident. All the resources of medicine, special and general, should in every case be brought to relieve the sick. This implies that similar direct objective investigations as that which is pursued in the case of females suffering from sexual disorder not apparently complicated with nervous disorder, shall be made in the subjects of nervous disorder in whom there is reason to infer that sexual derangement exists.

In the first place, there is the immediate indication to seek for light as to the cause of the nervous disorder, with a view to relieve this complication. In the second place, even if the nervous disorder be found not to depend upon the sexual disorder, it is still the duty of the physician to do what he can to relieve the sufferer from this element of trouble. An insane woman has surely as much right to relief from disease of the ovaries and uterus as a sane woman has.

Griesinger (1867) speaks very decidedly upon this point. He says: "On the least suspicion, a local examination should be made. It is certainly of great detriment to the patients that there exists amongst the asylum physicians a truly childish delicacy in regard to vaginal examinations. In Germany, France and England, I have found the same delicacy; they seem to be afraid of exciting the patients." This was said in 1867. I think the censure may now be considerably modified.

One rule I strongly urge. In every case of puerperal insanity, examine into the condition of the pelvic organs. Imperfect involution of the uterus is in the highest degree probable. In addition to other factors the functions of the breasts are almost always suspended. Thus a most potent stimulant to involution is wanting. Then retroversion or retroflexion is very probable. Relief from these conditions cannot fail to be beneficial, and may even bring about recovery.

Thus we see that in this inquiry the physiologist and the gynæcologist meet on common ground, each enlightening the other; and both helping to build up out of the materials of their special knowledge that true science, that comprehensive medicine which holds out the best prospect for the relief of physical and mental suffering.

Fatal Dyspnœa Due to a Caseous Gland.—The patient was an infant in arms, and previously to the onset of the dyspnœa was believed to be in perfect health. Suddenly, and without any obvious reason, the baby was seized with urgent dyspnœa. On admission, the house surgeon explained the dangerous condition to the mother, and that tracheotomy might be necessary at any moment. The mother, however, would not consent to any operation without first consulting her husband, and went away for this purpose. Meanwhile, the dyspnœa became extremely urgent, and tracheotomy was performed by the resident medical officer without the parents' consent. Some temporary relief was afforded; but a foreign body which was believed to be the cause of the trouble could not be found, nor any other satisfactory explanation for the dyspnœa. The child died within one and a half hours of the commencement of the attack. At the post-mortem examination a caseous gland, which had ulcerated its way into the trachea, was found just above the bifurcation, occluding one bronchus entirely. There had been no symptoms to attract attention to such a condition.—*Med. Press.*

ADULTERATION IN FOODS AND DRUGS.—Dr. Newton, Dairy Commissioner of New Jersey, reports for the past year that of 2,507 articles of food analyzed, 1,102, or 43.96 per cent., were adulterated. While all the American canned goods examined were found in good condition and free from metals or other dangerour ingredients, 88 samples, out of 107, of foreign canned goods were adulterated, the chief adulterant being copper, which had been added to give a green color. Three-fourths of the samples of extracted honey analyzed were adulterated with glucose or cane-sugar syrup. More than half of the molasses specimens were adulterated with molasses or cane-sugar; and what was sold for molasses was glucose and contained tin. Seventy per cent. of the pickles contained copper; seven samples of baking powders contained alum; raspberry syrup contained no raspberry, but in its stead an artificial ethereal flavoring essence colored with an aniline dye; and sausages were dyed with Bismarck brown and garnet red, and coated with a varnish composed of shellac, resin oil, and alcohol. Jellies, however, bore off the palm. Of 192 samples, 159 were adulterated; starch, water, acetic acid, currant flavoring extract, glucose, and coloring matter masquerading as currant jelly. In Philadelphia one manufacturer sold thirty-nine tons of this stuff in a single week, while another delivered one thousand tons in six months. Fifty factories are engaged in this business in this country.

Of the drugs examined, 64.55 per cent. were found adulterated or not equal to the standard. The fraudulent list included cream of tartar, opium, paregoric, iodide of potassium, seidlitz powders, spirit of nitrous ether, laudanum, and tincture of chloride of iron.

—*Brooklyn Med. Journal.*

Medical News and Miscellany.

PHILADELPHIA streets are unusually dirty.

DIPHTHERIA still exists at Bridgeton, N. J.

DIPHTHERIA has become epidemic in Indianapolis.

OSMAN, of Cavallovit, Turkey, is said to be one hundred and sixty years old.

THE bad quality of the potatoes at Killarney has produced an outbreak of fever.

THE public school at Center Grove, N. J., has been closed on account of diphtheria.

DR. JOHN S. MILLER, of Philadelphia, last week trephined a man for traumatic epilepsy.

DR. E. B. MATTHEWS, of Mobile, Ala., claims to have the largest rosebush in the world.

DIPHTHERIA has appeared in the southern part of Chicago, at Hyde Park and Homewood.

SOMETIMES a man becomes such a victim to drink that even the hopes of his friends are dissipated.

AN unfortunate Swede is confined in the Chester pest house, supposed to be affected with leprosy.

AUNT EDITH WILSON, of Providence, Kentucky, is said to be one hundred and thirty-three years old.

IT is proposed to employ the phonograph to take down the utterances of drunken men, that when sober they may realize what fools they have made of themselves.

NUSSBAUM, the celebrated Bavarian physician who died last week, is said to have been an opium habitue.

DURING September the deaths in St. Louis numbered 710; representing an annual mortality of 18.73 per 1,000.

DR. CHAS. B. PENROSE has been elected surgeon to the German Hospital of Philadelphia, to succeed Dr. F. H. Gross.

DR. W. B. COSTILL, of Trenton, has been made the defendant in a divorce suit, but emphatically denies the marriage.

COPIES of Dr. Frank S. Billing's paper on Inoculation can be obtained on application to the author, 134 Rialto Building, Chicago, Ill.

BLACKENING the nose and cheeks under the eyes has been found an effectual prevention of snow blindness and of the glare from snow.

DR. C. C. CROLLY, of White Plains, N.Y., endeavored to commit suicide on the graves of his two children, recently dead with diphtheria.

THE American Academy of Medicine will hold its next annual meeting at Philadelphia, Wednesday and Thursday, December 3 and 4, 1890.

DR. CHARLES MEIGS WILSON has resigned his position as physician to the Lying-in Charity, at Eleventh and Cherry streets, Philadelphia.

PROF. HOLDEN, of Lick University, claims to have discovered on the moon parallel walls two hundred feet thick and twelve hundred feet apart.

DR. QUINDARO MCQUAIDE, lately of the Norristown Asylum, has opened an office in Dr. Duer's former residence, at 1704 Arch street, Philadelphia.

WHEN certain foods disagree, it is better to lessen the quantity than to forbid them altogether.

—Sir William Roberts.

THE new wards of the Presbyterian Hospital will be ready for occupants on Thanksgiving Day; which has been designated as Donation Day by the Managers.

THERE is some trouble between the nurses and residents at the Philadelphia Hospital; due to the division of authority between the Chief Resident and Head Nurse.

DR. A. P. HELLER, of Millville, Pa., died last week, after practising in Columbia county for over forty years. He left a large estate. He graduated at the Eclectic Medical College, of Philadelphia, in 1854.

THE "all watches are compasses" item is destined to go the rounds. It may be that "when the hour hand is pointed towards the sun, the south is exactly half way between that and the figure xii," but on which side?

THE new Industrial Home for Girls and Women was opened November 3, at 425 South Thirteenth street, Philadelphia. It is intended as a shelter for women out of work, where they can earn something and keep straight.

DURING October there were 33 admissions to the Germantown Hospital, 30 discharges, and 2 deaths. In the dispensary 284 medical and surgical cases were treated; also 204 eye and ear cases; total, 488. There were 22 ambulance calls.

DONATION DAY at the Philadelphia S. P. C. A. realized over $400. During the past year the society investigated over 11,000 cases of alleged abuse. We regret to hear that this most worthy society is not in good condition ; the membership is decreasing yearly.

DURING October, 34 medical cases were admitted to St. Mary's Hospital. In the dispensary there were 1,901 visits paid by patients, among which were 426 new cases, 175 accident cases, 100 eye cases, 95 ear, nose and throat cases, 51 medical cases, and 40 surgical cases.

RUSSIA now allows female physicians to practise in all parts of that empire. They will wear a badge of their profession, and can practise in female schools and institutions admitting women, in similar institutions of the Zerustvos, and are specially exempted from calls as experts to attend criminal trials.

IN Southern California are Indians said to be from one hundred and fifteen to one hundred and forty years of age. They are said to have lived very temperately, their food being acorns, flour and water. Whether they or the world are any better off than if these people had died at the early age of seventy, is not stated.

A NOTICE was sent to the newspapers Saturday night stating that Prof. Bartholow had been offered the chair of materia medica and therapeutics in the Pennsylvania College of Pharmacy, and when installed he would be the dean. Prof. Bartholow said he knew nothing about it, and if offered the place he would not accept it.

AT the annual meeting of the contributors to the Gynecean Hospital, held recently at the office of J. Sergeant Price, the following officers were elected: Governors, Alexander Biddle, Dr. R. A. F. Penrose, J. Sergeant Price, Dr. William Hunt, Edward H. Trotter; President, Alexander Biddle; Secretary and Treasurer, Edward H. Trotter.

THE *Alabama Age* states that the law regulating registration in that State was so curiously worded that, though the Supreme Court has decided that illegal practitioners are criminals, they cannot be punished. An effort is being made to remedy this omission, but is opposed by the practitioners who do not belong to the regular school.

THE following were the operations of the Pennsylvania Eye, Ear and Throat Infirmary, northeast corner of Thirteenth and Chestnut streets, during October: Eye patients treated, 205 ; ear patients, 63 ; throat patients, 12 ; total, 280. Number of visits paid by eye patients, 1,341 ; ear patients, 1,020 ; throat patients, 233 ; total visits, 2,594.

THE popular view of the situation at Jefferson Medical College is shown in the following conversation : "Why does not Jefferson bring Dr. I. N. Love, of St. Louis, here to fill Bartholow's place? An able therapeutist, brilliant lecturer, and immensely popular man." "It is not so much brains that are wanted as it is a fat contribution to the Building Fund."

RECEPTION and donation day at the Philadelphia Home for Incurables, 4800 Woodland avenue, occurs Saturday, November 8. Visitors and donations will be received between 11 A. M. and 6 P. M. Gifts in money, dry goods, and groceries are solicited by the managers. In a circular just issued the managers make a special appeal for the cancer annex, and ask that contributions be sent in on donation day.

THE ladies have raised $100,000 as a fund to induce Johns Hopkins to open their medical school to women, and the money has been paid over to the Trustees. The object for which this has been contributed will not be attained until the fund has grown to half a million dollars. There is a shrewd suspicion that other medical colleges would have opened their doors to women for less money ; and have given a course of instruction fully equal to that of Johns Hopkins.

The *National Zeitung* states that Koch is about ready to announce his cure for tuberculosis; which is further said to consist in inoculations which render the body insusceptible to the disease. The introduction of the remedy practically is promised in six weeks; and so important is the matter considered that the government has granted permission to Koch to give up his winter teaching, so that he can devote himself to his (?) new discovery.

A NEW medical journal has appeared. This time it is the *Baltimore Medical and Surgical Record*, a monthly, at $1.00 per annum. The opening number contains forty-two pages of reading matter, mainly from local contributors, among whom are West, Rohè, Jones, and Canfield. There is also a steel plate of Dr. H. P. C. Wilson. The editor is T. H. Graham, who is also proprietor. Baltimore has but one other medical journal, and there may be room for another in that city.

THE primary battery has been applied to the propulsion of invalid chairs in England. A strong chair, weighing about two hundred pounds, is fitted with a battery at the back of the seat, and can be speeded up to about five miles an hour. As it is calculated that the cost of maintenance of the battery does not exceed four cents an hour, and as no renewal would be required during an ordinary day's use, the economy of this mode of propulsion for invalids is apparent.—*Chicago News.*

WHEN the United States removed the duty from coffee, over twenty years ago, Brazil, which supplies nearly all the coffee used in this country, immediately clapped on an export duty. Now, since the McKinley bill has become a law, Brazil has reduced the export duty from 11 to 4 per cent. The price to the consumer has remained the same as it would have been without any change in the duties; the difference being that under free trade the revenue went into the Brazilian treasury, and with the tariff this income is transferred to the treasury of the United States.

A CORRESPONDENT of the Chicago *Tribune* complains that he took a foreign prescription to a druggist in Chicago, who declined to return the paper after putting up the medicine. The writer claims that in England and Scotland the apothecaries return prescriptions, retaining copies. A Chicago druggist thinks that a good case can be made out for both customs, although "under ordinary circumstances, in this city, any druggist will give a customer a copy of the prescription he brings in, unless the physician's request is to the contrary."

A CHINAMAN'S PRESCRIPTION.—The Anniston, Alabama, *Hot Blast* publishes the following as the prescription which a Chinaman handed to a druggist of that city, to be filled for cancer: "Pickled lizards, two pairs; Corea ginseng root, one-half ounce; willow cricket skins, half a dozen; rattlesnake tail, one-fourth ounce; sweet potato vine, one ounce; black

dates, two ounces; red bark, one and one-half ounces; devil-fish suckers, three ounces; reindeer's horn (ground), one-half ounce; bird's claws, one-fourth ounce; lotus leaves, one-half ounce; white nuts, one ounce; dried ginger, one fourth ounce; coffin nails (old ones), five ounces. Boil the whole in two quarts of water, drink two spoonfuls a day, and make paste with the solution and powdered rat's flesh, and apply to the sore."

SECRETARY WINES, of the Illinois State Board of Charities, finds room for much improvement in the Cook county almshouse. The insane hospital has one thousand and eighty-four patients crowded into the space designed to accommodate seven hundred and fifty. Four additional wards are now being erected. Commitments to county asylums are not authorized by Illinois laws, and under these conditions, a patient once committed may be retained for life. Politics ruling the appointment of attendants, their quality is below the mark.

THE managers of the Charity Ball have selected three institutions as beneficiaries for the present season. The Home for Crippled Children, in West Philadelphia, is probably the most deserving of these. There are at present thirty-two of these little sufferers in it, and the institution has only one endowed bed. The Maternity Hospital is simply one department of the University Hospital, which manages in some guise to come in for its share of this charity nearly every year. The Kensington Hospital for Women was started by Dr. Kelly as a private hospital, and since he went to Baltimore has continued under the charge of Dr. Noble.

INTERMENTS in Philadelphia, from October 25 to November 1, 1890:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess	2		Inflammation bronchi	6	5
Anæmia	1		" bladder	1	
Apoplexy	15		" kidneys	3	
Bright's disease	8	3	" larynx	1	1
Burns and scalds	1	1	" lungs	13	14
Cancer	13		" peritoneum	3	
Casualties	10	4	" s. & bowels	2	1
Congestion of the lungs		1	Inanition		6
Cholera infantum		3	Jaundice	1	
" morbus	1		Marasmus		10
Cirrhosis of the liver	1		Neuralgia of the heart	1	
Consumption of the lungs	42	5	Old age	15	
Convulsions		12	Obstruction of the bowels	3	1
Croup		12	Paralysis	7	
Cyanosis		3	Poisoning	2	
Debility	5		Pyemia	2	
Diabetes	1		Scrofula		1
Diarrhœa	1	3	Septicæmia	2	
Diphtheria		15	Softening of the brain	1	
Disease of the kidneys	1		Strangulation		1
" " heart	18		Suffocation	1	
" " liver	1		Suicide	1	
Dropsy of the brain		1	Teething		1
Eczema		1	Tetanus		1
Fatty degeneration of the heart	3		Uræmia	2	
Fever, scarlet		7	Whooping-cough		4
" typhoid	6	1	Total	199	129
Hemorrhage		1			
Homicide	1				
Inflammation brain	1	10			

The Trustees of the Jefferson Medical College postponed until December 8 the election of a Professor of Materia Medica. The vacancy in the College Faculty is to be filled temporarily by an instructor to be selected by the professors. The Trustees received several additional nominations for the vacant Professorship, making the list stand as follows: Dr. Hobart Hare, Professor of Clinical Diseases of Children in the University of Pennsylvania; Dr. Thomas J. Mays, Professor of Experimental Therapeutics at the Polyclinic; Dr. Samuel O. L. Potter, Professor of the Practice of Medicine in the Cooper Medical College, San Francisco; Dr. S. Solis-Cohen, Professor of Clinical Medicine in the Polyclinic; Dr. Daniel E. Hughes, Chief Resident Physician at the Philadelphia Hospital; Dr. Joseph Hearn, a member of the surgical staffs of the Jefferson and Philadelphia Hospitals; Dr. J. S. Alleyne, Professor of Materia Medica in the St. Louis Medical College; Dr. F. P. Henry, a member of the medical staffs of the Jefferson and Philadelphia Hospitals.

ONE of the Louisville journals relates the following incident in the life of Dr. John A. Wyeth. While attending college after the close of the war, he came one snowy day with an old Confederate overcoat on—the only one he then possessed. Some youths prepared to give him a hot reception with snow balls; but, noticing them, he instantly assumed a limp. Nobody would throw a ball at a wounded soldier, and he got inside the gates in safety, when his limp at once vanished, to the great wrath of the boys, who promised him on their next meeting a worse mauling than he had ever received from Uncle Sam's soldiers.

PATENTS, ETC., issued October 28, 1890:—

Cosmetic	A. Bosse	Paris, France.
Electro-dental heater	L. A. Faught	Philadelphia, Pa.
Dental-tool holder	C. M. Richmond	New York, N. Y.
Preparing artificial gums	D. E. Rugg	New York, N. Y.
Dentist's burring-tool	A. W. Browne. (Reissue)	Princes Bay, N. Y.
Apparatus for automatically disinfecting water-closets, etc.	W. & G. Heywood	Middleton, England.
Machine for labeling bottles	S. Cooper	Manchester, N. H.
Obstetrical apparatus	W. S. Hall	Boston, Mass.
Ointment	F. D. Hall	Plattsburg, N. Y.
Operating-chair	H. R. Allen	Indianapolis, Ind.
Decomposing bicarbonate of soda	L. A. Staub	Winnington, England.
Pocket surgical case	F. A. Reichardt	New York, N. Y.
Truss	J. J. Pelton	Miles Grove, Pa.
Truss-pad	C. Gilson	Augusta, Ga.

TRADE-MARK.

Medicines, ointments, and lotions. (The portrait of Madame E. G. C. Rozzelle)	E. G. C. Rozzelle	Syracuse, N. Y.

LABELS.

"Absolute Parasite Exterminator." (For a remedy for poisonous blood diseases)	S. E. Barron	Cleveland, O.
"Rockey & Baltzly's Compound Syrup of Wild Cherry and Tolu"	Rockey & Baltzly	New York, N. Y.
"Dr. Hart's Family Pills"	Hart Rheumatic Remedy Co	Buffalo, N. Y.
"Underhill's Eczema Ointment"	S. E. Underhill	Huron, S. D.

CHARLES J. GOOCH, *Patent Attorney.*
LOCK BOX 76, WASHINGTON, D. C.

DONATION DAY to the Philadelphia Polyclinic Hospital, northwest corner of Broad and Lombard streets, on Wednesday, November 12, 1890. The Ladies' Aid Society issues its annual appeal for aid to enable the hospital to carry on successfully its important work. The members of the society will be in attendance at the temporary building, northwest corner of Broad and Lombard streets, on November 12, from 2 to 6 P. M. They will gratefully accept contributions of money for the building fund, or for furnishing the new building, which is to be occupied on or about January 1, 1891. Donations of delicacies for the sick, groceries, provisions, coal, furniture, muslin for bandages or household purposes, cooking utensils, china, glass ware, carpets, rugs and all useful household articles are greatly needed. The expenses of the new building will be great, and this appeal is strongly urged, so as to extend the peculiar usefulness of the

Polyclinic Hospital to a larger number of patients. During the year 1889, 4,607 new patients were treated, and there were 18,006 return visits of old cases, making a total of 22,613 in the twelve special departments. These patients came from twenty-eight counties of Pennsylvania and twelve neighboring States. The work of the hospital for the ten months of 1890 has far exceeded that of any previous year, and the cramped temporary quarters have proven totally inadequate to meet the increasing demands. The new building will afford increased facilities, and its usefulness must depend entirely upon the financial support given it by the public. Its far-reaching charity as the only Post-Graduate Medical College and Hospital in the State of Pennsylvania, carries the appeal for assistance outside the narrow limits of a local charity. Every physician who attends the Polyclinic carries the benefits he has received to the far distant sick poor of his neighborhood, and to the rich as well. Like the Johns Hopkins University, etc., its benefits and its appeal are broad-cast, and it is hoped that similar generous responses may be obtained by the Philadelphia Polyclinic Hospital. It is expected that the new building will be in condition to hold a bazaar on December 3 and 4, so that there will be an opportunity to inspect this thoroughly modern new hospital. Checks should be drawn to the order of Mrs. H. Augustus Wilson, Treasurer to the Ladies' Aid Society of the Polyclinic Hospital; or, Henry Leffmann, Treasurer to the Board of Trustees.

TO CONTRIBUTORS AND CORRSEPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy and Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from October 3, 1890, to October 13, 1890.

By direction of the Secretary of War, the following changes in the stations and duties of officers of the Medical Department are ordered: Major George M. Sternberg, Surgeon, is relieved from duty as Attending Surgeon and Examiner of Recruits at Baltimore, Md., and as a member of the Army Medical Board appointed to meet in New York City, N. Y., and will repair to San Francisco, Cal., and take charge of the Medical Purveying Depot at that place, as Acting Assistant Medical Purveyor, relieving Colonel B. J. D. Irwin, Surgeon. Colonel Irwin, on being thus relieved, will report in person to the commanding general, Department of the Columbia, for assignment to duty as Medical Director of that Department, and as Post Surgeon, Vancouver Barracks, Wash., relieving Major William E. Waters, Surgeon, now Post Surgeon, and temporarily in charge of the Medical Director's office. Major Waters, on being thus relieved, will report in person to the commanding officer, Fort Custer, Mont., for duty at that station. Par. 8, S. O. 232, A. G. O., October 3, 1890.

By direction of the Secretary of War, Major Van Buren Hubbard, Surgeon, is relieved from duty at Columbus Barracks, Ohio, and will report in person to the commanding officer, Fort Spokane, Wash., for duty at that station, relieving Captain Henry S. Turrill, Assistant-Surgeon. Captain Turrill, on being relieved by Major Hubbard, will report in person to the commanding officer, Madison Barracks, New York, for duty at that station, relieving Major John D. Hall, Surgeon. Major Hall, on being relieved by Captain Turrill, will report in person to the commanding officer, Fort Canby, Wash., for duty at that station. Par. 8, S. O. 232, A. G. O., Washington, D. C., October 3, 1890.

By direction of the Secretary of War, Captain Rudolph G. Ebert, Assistant-Surgeon, is relieved from duty at Angel Island, Cal., to take effect upon the arrival at that post of Major William H. Gardner, Surgeon, and will then proceed to Vancouver Barracks, Wash., and report to the commanding officer of that post for duty. S. O. 232, par. 15, A. G. O., Washington, D. C., October 3, 1890.

By direction of the Secretary of War, Captain Robert B. Benham, Assistant-Surgeon, will proceed from Fort Hamilton, New York, to Mount Vernon Barracks, Ala., and report in person to the commanding officer of that post for temporary duty, relieving Captain John J. Cochran, Assistant-Surgeon, who will return to his proper station. Par. 8, S. O. 232, A. G. O., Washington, D. C., October 3, 1890.

By direction of the Secretary of War, Captain C. N. Berkeley Macauley, Assistant-Surgeon, is relieved from duty at Fort Supply, Indian Territory, and will report in person to the commanding officer, Fort Lewis, Colo., for duty at that station. S. O. 233, par. 2, A. G. O., Washington, D. C., October 4, 1890.

By direction of the Secretary of War, leave of absence for three months is granted Captain Robert J. Gibson, Assistant-Surgeon, to take effect on being relieved from duty at Fort Trumbull, Conn., by Major Henry M. Cronkhite, Surgeon. Par. 12, S. O. 232, A. G. O., Washington, D. C., October 3, 1890.

By direction of the Secretary of War, Captain Arthur W. Taylor, Assistant-Surgeon, is relieved from duty at Fort Wingate, New Mexico, to take effect on the expiration of his present sick-leave of absence, and will report in person to the commanding officer, Fort Adams, Rhode Island, for duty at that station, relieving Captain J. J. Cochran, Assistant-Surgeon. Captain Cochran, on being relieved by Captain Taylor, will report in person to the commanding officer, Camp Eagle Pass, Texas, for duty at that station, relieving First Lieutenant Paul Clendenin, Assistant-Surgeon. Lieutenant Clendenin, on being relieved by Captain Cochran, will report in person to the commanding officer, Fort Brady, Mich., for duty at that station. Par. 8, S. O. 232, A. G. O., Washington, D. C., October 3, 1890.

By direction of the Secretary of War, Captain Walter Reed, Assistant-Surgeon, is relieved from further duty at Mount Vernon Barracks, Ala., and assigned to duty as Attending Surgeon and Examiner of recruits at Baltimore, Md. Par. 7, S. O. 233, A. G. O., Washington, D. C., October 4, 1890.

Leave of absence for one month, on surgeon's certificate of disability, is granted Assistant-Surgeon, N. S. Jarvis. S. O. 107, Dept. of Arizona, October 14, 1890.

By direction of the Acting Secretary of War, the retirement from active service, on October 12, 1890, by operation of law, of Captain Andrew V. Cherbonnier, Medical Storekeeper, under the provision of the act of Congress, approved June 30, 1882, is announced. Par. 11, S. O. 240, A. G. O., Washington, D. C., October 13, 1890.

By direction of the Secretary of War, leave of absence for four months is granted Captain J. E. Pilcher, Assistant-Surgeon. Par. 12, S. O. 244, A. G. O., October 18, 1890.

By direction of the Acting Secretary of War, the retirement from active service on October 12, 1890, by operation of law, of Captain Andrew F. Cherbonnier, Medical Storekeeper, under the provisions of the Act of Congress approved June 30, 1882, is announced. Par. 11, S. O. 240, A. G. O., Washington, D. C., October 13, 1890.

PROMOTIONS.

IRWIN, BERNARD, J. D., Lieutenant-Colonel and Assistant Medical Purveyor. To be Surgeon, with the rank of Colonel. August 28, 1890.

FRYER, BLENCOWE E., Major and Surgeon. To be Assistant Medical Purveyor, with the rank of Lieutenant-Colonel. August 28, 1890.

COWDREY, STEVENS G., Captain and Assistant-Surgeon. To be Surgeon, with the rank of Major. August 28, 1890.

APPOINTMENT.

VOLLUM, EDWARD P., Colonel and Surgeon. To be Chief Medical Purveyor, with the rank of Colonel. August 28, 1890.

Changes in the Medical Corps of the U. S. Navy for the week ending October 25, 1890.

CERDEIRO, F. J. B., Past Assistant-Surgeon, detached from U. S. S. "Nipsic" and granted three months' leave of absence.

HEFFINGER, A. C., Past Assistant-Surgeon, placed on the retired list, October 20, 1890.

The Times and Register.

Vol. XXI, No. 20. NEW YORK AND PHILADELPHIA, NOVEMBER 15, 1890. Whole No. 636.

PAGE

ORIGINAL ARTICLES.

THE PSYCHOPATHIC SEQUENCES OF HEREDITARY ALCOHOLIC ENTAILMENT. By C. H. Hughes, M.D., St. Louis - - - - - 447
WIRING THE SEPARATED SYMPHYSIS PUBIS, SUPPLEMENTED BY A NOVEL PELVIC CLAMP. By Willis P. King, M.D., Kansas City, Mo - - - - - - - - - - 450
TREATMENT OF EPILEPSY. By Philip Zenner, A M., M D, Cincinnati - - - - 452
SPONTANEOUS (NON INS RUMENTAL) ACCESS OF BACTERIA TO THE BLADDER, ETC. By R Van Santvoord, M.D., New York City - - - - - - - - - - - 453

SOCIETY NOTES.

ALLEGHENY COUNTY MEDICAL SOCIETY - 454

THE POLYCLINIC.

MEDICO-CHIRURGICAL HOSPITAL:
For Gonorrhœa. *Shoemaker* - - - - - 456
Acne Associated with Rosacea. *Shoemaker* 456
For Herpes. *Shoemaker* - - - - - - 456
Urethral Injections. *MacConnell* - - - 456
Const pation, etc *Waugh* - - - - 457
Co d Applications to a Crushed Limb. *Goodman* - - - - - - - - - 457
Debility in Children. *Hollopeter* - - - - 457
Inhalations of Chloroform for Children. *Hollopeter* - - - - - - - - 457
Divergent Strab smus. *Keyser* - - - - 457
Soft Cata act. *Keyser* - - - - - - - 457
For Eczema of the Limbs. *Shoemaker* - 457
For Eczema Marg nata *Shoemaker* - - 457
UNIVERSITY OF PENNSYLVANIA:
Dyspepsia. *Pepper* - - - - - - - - 457
Equivalent of Human Milk. *Hirst* - - - 457
Bronchitis in Children. *Hare* - - - - - 457

EDITORIALS.

ARE THE PROTOZOA IMMORTAL? - - - - 458
Dixon on Inoculation for Tuberculosis - - 458

ANNOTATIONS.

The Way it is Done in New York - - - - 462
Encourage Home Science - - - - - - 462
Mackenzie s Objection to Large Hospitals - 462

PAGE

LETTERS TO THE EDITOR.

Seventh International Congress of Hygiene and Demography, *Billings* - - - - - - 462

BOOK NOTICES.

The Pharmacology of the Newer Materia Medica. - - - - - - - - - - - 463
Essentials of Minor Surgery and Bandaging. *Martin* - - - - - - - - - - - 463
Vivisection. *Leffingwell* - - - - - - - 463
A Compend of Human Anatomy. *Potter* - 463
Materia Medica for Nurses. *Dock* - - - - 463
Bacteriological Technology for Physicians. *Salomonsen* - - - - - - - - - 463
A Manual of Auscultation and Percussion. *Flint* - - - - - - - - - - - 463
A Practical Treatise on Impotence, Sterility, and Allied Disorders of the Male Sexual Organs. *Gross* - - - - - - - - - - 463
Register of Physicians in Pennsylvania by Counties - - - - - - - - - - - 463
Annual of the Universal Medical Sciences. *Sajous* - - - - - - - - - - - 463
Ointments and Oleates, Especially in Diseases of the Skin. *Shoemaker* - - - - - 464

THE MEDICAL DIGEST.

Spread of Fevers in London - - - - - - 464
Peroxide of Hydrogen - - - - - - - - 464
To Relieve Pain by Hypnotism. *Germain Sée* - - - - - - - - - - - - - 464
Vesical Calculus. *Hannon* - - - - - - 464
Strychnine, *Nocard* - - - - - - - - 464
Scarlatina. *Bokai* - - - - - - - - - 464
Salol in Cholera. *Macrae* - - - - - - 464
For Excessive Vesical Tenesmus. *Med. Press* 464
Digitalis. *Dewees* - - - - - - - - - 464
McSherry's Ga gle. *Balto. M. and S. Record* 464
A Sedative for Babes. *Ex.* - - - - - - 464
Torsion of Arteries. *Murdoch* - - - - - 464
To acco in Hernia. *Spalding* - - - - - 464
Pil carpine in Dermatology. *Klotz* - - - 464
Eh lich's Test for Typhoid Fever - - - - 465
Salol in Typhoid Fever. *Cahall* - - - - 465
Kansas Fertility. *Kansas Med. Jour.* - - - 465
Rider's Bone. *Schmit* - - - - - - - - 465

PAGE

Wounds of the Lung. *Axford* - - - - - 465
Analgesia in Insanity. *Keniston* - - - - 465
Removal of a Large Vesical Calculus per Vaginam. *Magruder* - - - - - - - 465
Aristol. *McLaughlin* - - - - - - - - 465
Chronic, So-called Rheumatic Affections. *Lane* - - - - - - - - - - - - 465
Exercise in Pelvic Diseases of Women. *Kellogg* - - - - - - - - - - - - 466
For Neurotic Incontinence of Feces. *Mendenhall* - - - - - - - - - - - - 466
Marriageable Age of Females in India. *Foggo* - - - - - - - - - - - - - 466
The Retirement of Dr. Bartholow. *Cincinnati Lancet-Clinic* - - - - - - - - - 466
Total Blindness Following Shock—Recovery. *Brown* - - - - - - - - - - 466
Acute Epiphysitis. *Lockwood* - - - - - 467
Piscidia Erythemia. *Pitcher* - - - - - 467
Excretal Dermatitis *Walsh* - - - - - 467
Galvano cautery in Corneal Diseases. *Magee* 467
Changing Pessaries. *Duke* - - - - - - 468
Diphtheria from Animals. *Davison* - - - 468
Concerning Possible Therapeutic Uses of Hypnotism. *Corning* - - - - - - - 469
Spinal Concussion *Clevenger* - - - - - 469
Antiseptics. *Broughton* - - - - - - - 469
Rapid and Easy Methods of Estimating Urea and Sugar in Urine. *Bartley* - - - - - 470
FRENCH NOTES. *Roussel* - - - - - - - 471
Death Following Simple Catheterism of the Uterus. *Gibert* - - - - - - - 471
Iron Pills. *Huchard* - - - - - - - - 471
Aristol. *Bulletin de Thérapeutique* - - - 471
Deleterious Influence of Tobacco. *Decroix* 471
Galvanic Current in Gynæcology. *Apostoli* 471
ITALIAN TRANSLATIONS. *Hutchinson* - - 472
Gastric Derangement. *Messalongo* - - - 472
Euphorine: A New Antipyritic. *Hosp. Gaz.* 472

MEDICAL NEWS AND MISCELLANY. 472

ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - 473

NOTES AND ITEMS - - - - - - - - iv, xv

THE PSYCHOPATHIC SEQUENCES OF HEREDITARY ALCOHOLIC ENTAILMENT.[1]

By C. H. HUGHES, M.D.,
ST. LOUIS,
Professor of Psychiatry and Neurology, Marion Sims College of Medicine, Late Superintendent of the Missouri State Lunatic Asylum No. 1, etc.

NOTHING in neuropathology is now plainer than the retrograde heredity of chronic alcoholics. The alcoholic poison interferes with the highly organized physiological movements of the psychical centers, arrests and perverts the complex activities of the cerebral cortex, and begins a decadent and perverted neural metamorphosis that goes on from one stage of instability to another, until the final ending of all neural instability is reached (unless fortuitously arrested) in dementia or imbecility and death, when even perverted neural force can no longer be evolved. The evolution of the cerebro psychical centers thus arrested or perverted, ends in final dissolution and extinction of type.

The neuropathic thrall of entailed alcoholism is no new theme to neurologists. It was familiar to Benjamin Rush, and the researches of Morel in the field of neuropathic degeneracy sequent to ancestral alcoholic excess, have been so often affirmed and reaffirmed by credible medical testimony that no doubt now remains, in the medical mind, of the power of excessive ancestral alcoholic indulgence to pervert neuropsychic function in the descendants of the victims of this vicious disease.

We need not dispute the point as to whether alcoholism is a vice or disease, for it is, and it may be both or either, and whether it in the beginning be one or both its ending is always in disease, which is either the beginning or continuance of a transmitted neuropathic or neuro-psychopathic heritage.

If the first generation, as Morel has observed, shows immorality, alcoholic excess and brutal degradation, the second one will usually show, as he also observed, hereditary drunkenness, maniacal attacks, and general paralysis, or some similar psychopathic affection. The third generation may show sobriety, but instead of the transmitted drunkenness, the hereditary neuropathic perversion will probably reveal itself, as Morel saw it, in hypochondria, mania, lypemania and tendency to homicide and suicide; and we shall see in the fourth and after-coming generations feeble intelligence, stupidity, early insanity and the beginning of the end of the family in extinction.

All alienists have confirmed this observation of Morel, and the fatal heritage of chronic alcoholic toxhæmia is proven upon those living within the walls of asylums for the insane the world over, and in every walk of life without, and upon the cadavers of those who have died under the power of this neuro-toxic force. We no longer need the extensive clinical observations of Magnan nor the later pathological researches of Bevan Lewis for proof. The diseased arterioles, the granular degenerations of the nerve cells, pericellular and perivascular nuclei proliferation, aneurismal dilatations and exudative and indurative cerebral changes, are too familiar now to be longer doubted, and witnesses too many to be here enumerated, embracing all who have clinically studied inebriety, attest the fact that the habitual long-con-

[1] Read before the Mississippi Valley Medical Association, at Louisville, Ky., October 9, 1890.

tinued use of alcohol as a beverage in excessive quantity in one generation makes an indelible impress upon the nerve stability of the generations that follow.

It has the undoubted power of engendering neuropathic and psychopathic conditions *directly* in the individual, besides a great number of extra neural morbid conditions, as the oft observed and no longer doubted delirium tremens, epilepsy, insanity and imbecility, paralysis and the neuritides of drunkards show, and the morbid entailments of alcoholic excess do not stop with the individual as we have seen. They pass over in greater force to his descendants. This is the gospel of science. These morbid endowments of the drink habit are more apparent in the drunkard's progeny, for the reason that his children come into the world dowered with less power of neurotic resistance to the depressing and perverting assaults of alcohol and its compounds upon the integrity of the ganglion cells of the cerebrum and the nervous centers of the whole cerebro-spinal axis and sympathetic system.

By reason of a better organic heritage and the greater inherent power of vital resistance, the drinking person may show but little of the inroads his alcoholic excesses are making upon the physiological soundness of his cerebro-spinal and ganglionic centers. An occasional or single epileptic seizure during a debauch, or none at all, during a life given to drink; some perversions of disposition or mental depression, or a day or two of trance following a prolonged spree once or twice in a life-time, or none of these evidences of cerebro-psychical damage may so markedly appear. (The subject of alcoholic trance is too extensive to be treated here as its forensic merits require. We content ourself now with a simple note. *Vide finis.*)

None of these positive and more directly perceptible consequences of alcoholic damage may appear directly in the individual. He may go through life moderately full of alcohol, able to attend in a fairly good manner to the routine demands of his business, to be cut off prematurely under some slight extra organic strain (for one of his extraordinary hereditary endowment of nerve resistance), by an apoplexy —cerebral or pulmonary—or hepatic disease, which another less strongly endowed for resistance by nature, would have withstood. His ganglionic centers fail him in some vital crisis, and the "silver cord is loosed" forever.

The nerve mechanism, which never escapes in the habitual or periodic excessive drinker, but more especially in the regular so called moderate social drinker (who never sprees, though seldom refuses when asked to drink, who takes his regular evening night-cap, and morning eye-opener, and tri-daily appetizer) is the vasomotor system. This failure causes the pneumoniac to die from an attack of lung fever of no greater severity of causation than that of which his non-drinking fellow in the next bed promptly recovers. He may die prematurely of an over-worked kidney or an over-taxed liver, by reason of ganglionac paralysis (and I believe that over distension of the renal circulation from the general vascular hyperæmia of over-brain strain and alcoholic stimulation combined, are the remote causative factors of Bright's disease), and neither he nor his friends may think that alcohol has done him harm.

But look at the drinking man's children! He may have been himself a very proper and apparently healthy citizen, beginning in early life a regular business, and having acquired and filled a regular and honorable business place in the world, and never seriously sick till the last acute illness that suddenly carries him off before his physiologically appointed time.

Why is one child an idiot or imbecile, another erratic, moody, violent, visionary, melancholic, or insane, epileptic, choreic, or suddenly criminal despite the best of training and environment, especially among his latest offspring, while only the children born of his loins earlier in life, when alcoholic excess had made no organic impress upon him, are ordinarily healthy in mind and body?

The habitual disturbances of organic functions—morbid physiological exaltation, and reactionary morbid depression, through increased vascular relaxation and consequent capillary congestion, may not materially affect the integrity of function in the matured cells of the psychical centers of the parent of sober lineage, so as to markedly modify their matured and long-established habit of acting, but in the drunkard's child, who starts unstably endowed by hereditary neuropathic entailment resulting from an ancestor's alcoholic excess, the resistance power of the parent or parents in early life is not in the child's organism. He is a step lower than his father or mother, or both, if they were habitual drinkers, in the scale of organic degradation, and has, in consequence, feeble resistance to the assaults, not only of alcohol from within, but of adverse environments from without, and they reveal this hereditary organic degradation in erratic actions, morbid, insane or criminal conduct—conduct which in them is always the offspring in whole or in part, of disease—disease within. Upon them, consequently, influences without their organisms, resisted by others, have an overpowering force. Their environment leads them irresistibly into crime, like the extraneous circumstances which cause in them disease their parents had not shown, and crime their parents would have resisted.

The drunkard's child's crime is not all his voluntary crime, nor his vice engendered disease, all disease of his own making. His father, or his father's father or mother, may have deliberately chosen that which, with all its voluntary seeming in the boy, is become to him an inexorable morbid fate, appearing as immoral conduct. "The fathers have eaten sour grapes, and the children's teeth are set on edge."

With this too cursory preliminary review of what we know of the hereditary neurotic enthrallment of alcohol, we record an interesting hypothetical case, which we will suppose to cover the facts in an important medico legal record of entailed alcoholic disease and crime perpetrated under its fatal sway.

HYPOTHETICAL CASE.

Suppose a young man approaching his majority, naturally kind of heart, not reared in crime nor in the slums of a city's poverty quarters, but in comfortable circumstances, and fairly educated among correct people, commits an unprovoked murder of one of the dearest and nearest of his friends. In his family the following abnormal traits appear: On the maternal side a grandfather is a man of excess in eating, drinking, etc.; inebriate and melancholy, and he dies of apoplexy. An only son survives him long enough to develop inebriety and die of drink in his youth. A brother is like himself, and dies a drunkard. Sisters and cousins in varying degrees, according to environment, exhibit the same failing. A grandmother at an early age drank liquor to excess, and died prematurely in consequence of excessive drink. All the sons of the grandmother's sisters died young in consequence of drink. Of the remaining ancestry of this alcohol-tainted organism, one uncle was, from early youth, addicted to alcoholic indulgence, his thirst for drink becoming finally insatiable, and he died of delirium tremens in early manhood, after previous attacks of acute alcoholic insanity. An-

other uncle was also addicted, from his early youth, to the use of alcohol to inebriety, and finally became melancholic and insane with delusions of dread and suspicion. Several sisters of these two men were victims of the hereditary failing, among them the mother of the supposed young man we are considering. The boy's father, too, was in early life, before the boy's birth, an intemperate man, and the boy himself was, from early puberty, intemperate, unstable and choreic, and had suffered in childhood from a physical shock to his nervous system, caused by a violent fall. This young man in question, when under the influence of liquor, was a markedly changed man, and when the time of one of his periodically recurring sprees would come around, he was likewise very different from his natural self, being moody, listless, drowsy and melancholy; and after indulging in his inordinate craving and unnatural appetite, he would become exhilirated, reckless of danger, excessively cheerful at times, and extremely violent towards, and suspicious of his best friend, filled with morbid fears, dreads and suspicions. When sober he was nervous, restless and unhappy, and whenever he got a taste of liquor he would invariably drink to excess—drinking to exhaustion, prostration and illness in consequence of his excess. Suppose for five or ten years the life of such a person was almost one continual succession of sprees—suppose such a man, after such a life, and at the close of a several weeks' prolonged spree, takes the life of his best friend by manual violence while struggling to get money from this friend who had refused it, and with the aid of an accomplice takes money, jewelry and other valuables from his person, pawns some of the things for liquor, making no attempt to escape, and not appearing to remember or realize the enormity of the crime committed, remains in the neighborhood of the murder intoxicated until arrested, vaguely remembering the fact of the robbery, but not believing the party robbed and maltreated was dead or seriously injured.

This is a common kind of inebriate crime. This picture would answer for the ordinary portraiture of the average inebriate criminal arraigned in our courts of justice. It is of necessity so drawn as not to describe personal cases that have come under my professional care, but it is true to inebriate nature, as I have seen it all too pitiably and painfully portrayed, and will answer well for a composite picture of morbid, as contradistinguished from purely immoral inebriety and crime. The picture is not overdrawn, but is faithfully true to nature.

I have purposely put in a criminal motive in the above hypothesis that the natural semblance to crime may appear just as it appears in many cases of insanity. The inebriate and the insane person act, unless totally demented, from motive more or less apparent, but the hidden springs of human conduct in both are different from those in the rational and healthy mind. A different combination of morbid influences, ancestral and immediate, in the nervous organism of the chronic inebriate or the periodic inebriate, unites with his environment in the drink-enthralled man, from that which influences and determines ordinary human conduct in sane and temperate men.

1. Assuming the above hypothetical case to be true, what would be your judgment as to the existence or non-existence of hereditary alcoholic degeneracy and impairment of the brain, and the existence or non-existence of dipsomania, or involuntary and resistless impulse to drink alcoholic liquors to excess, in the case of the supposed youth, and degree of irresponsibility from drink?

2. What was the mental condition of the supposed person when he committed this unlawful deed?

3. What is the effect on the mind and on the will of such an inherited taint, united with the state of chronic alcoholism, as in the case of such a supposed youth?

Such, with more or less completeness of specific detail, is the character of the hypothetical case and interrogatories of late years propounded in our courts to the expert in psychiatry, for the neuropathic entailments of chronic ancestral alcoholism. Thanks to an enlightened judiciary in some of the American States, aided by the wise and judicious efforts of our medico-legal societies, inebriety has become a recognized extenuation and often complete and just excuse for crime perpetrated under its potent and often resistless morbid influence, and the following, or something like them, are still the customary interrogatories propounded, *pro forma*, by the counsel for the State:

1. Is it your opinion that such a supposed person was unable to distinguish between right and wrong?

Or, perchance, the more enlightened and just interrogatory, like the following, is offered by the State:

"Will you say that a person so affected could not tell that an act which he committed was wrong, or, if conscious, that it was wrong—is it your opinion *that he was incapable of resisting the impulse to commit it*, by reason of disease hereditarily entailed or acquired?"

It were fortunate for the unfortunate victim of the faulty and imperiously unstable neuropathic heritage of long-continued or hereditarily transmitted alcoholic indulgence, if a wise, humane and considerate counsel and court secure such just instructions in such clear conformity with the facts of clinical observation and experience as the last interrogatory would warrant, for inebriety either in its periodic or continuous forms is a disease, as much so as the recognized and acknowledged phases of insanity, epilepsy, idiocy and imbecility it both directly and indirectly engenders, and while in considering it in its medico-legal relations, we have also to consider the accompanying factor of a once normal volition, we have in the inebriate a mind and will always more or less modified, perverted, or deranged by disease; alcohol being itself a directly toxic agent, in its influence on the brain and allied nervous system, as well as potently poisonous to the blood itself in any considerable quantity, and especially so as all experience proves, when long continued, in excess, in either the individual or his ancestors.

It is, indeed, a strange phenomenon of the human mind in its forensic relations that an agent which the world recognizes and acknowledges as the parent of pauperism, insanity and crime, and the chief direct or indirect populator of penal, eleemosynary and correctional institutions, and the proven cause of so much disease, misery and death, should be held responsible to the extent it is before our judicial tribunals, when the hapless and often hopeless and helpless victims of its vicious power are arraigned to answer for crime committed through its influence over their involuntarily enslaved organisms—organisms often prenatally predestined to pathological perversion (as most of the unfortunate inmates of asylums for the insane are organically predetermined to an aberrant course of life conduct), through the alcoholic excesses or other neuropathic disorders of ancestors, or through a precocious drink-craving, however engendered, whether ancestrally or self-acquired, and prematurely and excessively indulged, to the harm of the delicate machinery of the brain.

The force of physiological habit is recognized in all of our dealings with men. Why, then, should courts

ignore the power of that neuropathic thralldom which alcohol undoubtedly engenders in certain individuals, to their harm and the harm of the world about them, enchaining, enslaving and perverting conduct, until the unfortunate slave of its vicious sway is no more in harmony with his natural self, unperverted by this disease, than the lawfully and justly consigned inmate of a lunatic asylum is?

The dipsomaniac is as surely perverted and deranged in his brain and connected nervous system as any other lunatic, and the confirmed inebriate claims our sympathy and succor and the kindly consideration of the law, because he is the victim of disease. It is for humanity and the law to decide in each individual instance, however, how far on the one hand inebriety should extenuate crime, and to what extent on the other it should punish the volition that may have engendered the disease. It is a plain proposition, which admits of no doubtful interpretation, that acute alcoholism voluntarily and premeditatively induced, or even voluntarily yielded to, for the purpose of committing or shielding from crime, is as culpable as any other criminal intent, while on the other hand a diseased propensity to drink, indulged in obedience to the promptings of a resistless organic aptitude handed down from father to son, or transmitted through the womb of an alcoholized or otherwise neuropathic mother, should receive a different consideration, just as any other neuropathic heritage causing psychopathic perversion, extenuates even the most heinous of crimes in the eye of the law and in the judgment of courts.

Our ancestors in the medical profession rescued the lunatic from the neglect and violence of ignorance: let us protect and save the nerve-degenerate inebriate.

NOTE.—A correspondent of the *Courrier des Etats-Unis* sends from Paris, under date of September 20, 1890, the following mention of a recent trial for homicide, committed in that city under somewhat peculiar circums ances, and of the prompt acquittal of the accused on the ground of mental irresponsibility. We present to our readers a translation:

On April 20 last, at 11 o'clock A.M., a cry for help was suddenly heard to proceed from a house in Park Royal street, an apartment of which was occupied by a widow, aged twenty-seven years, named Bohringer. The neighbors met a man on the threshold of her room who remarked: "You can enter. It is all over with her. There she is,"—at the same time pointing to the young woman, who lay stretched on the floor in a pool of blood. The victim had been struck with a finely-sharpened cold-chisel. After being conveyed to the Hospital St. Louis, she was able to speak but a few intelligible words, and died after an agony of a few days.

The assassin, named Joseph Hahn, a widower and the father of three children, had long paid assiduous court to the deceased, with the expectation of marriage. That he had premeditated the crime was patent from the fact that he had hired a cutler to sharpen the chisel, the day before. It was satisfactorily shown before the court that Hahn was a skillful workman, that his probity was incontestable, that he adored his children, but that, when drinking, he became violent and brutal, destroying or injuring whatever was within reach.

At first sight, the tranquil face of Hahn in no way betokens insanity; but his attitude before the court and the audience was so singular as properly to raise a doubt in this regard.

The following were his replies to questions by the court:

Court. The police report represents you to be an honest man.

Hahn. Yes; I have always been honest. I have never in my life intentionally done harm to any one. But sometimes I drink too much, and then it affects my head, so that I know no longer what I do.

C. Why do you drink?

H. Because I am obliged to associate with the public in order to procure work.

C. You met the Bohringer woman in a Roquette street restaurant. Did you know that she had a lover?

H. No; I did not know it.

C. Did you propose marriage to her?

H. No; it was she who proposed it to me. We were to be married at the end of her term of mourning. We had but two months more to wait.

C. Then why did you kill her?

To this question Hahn at first replied: "I do not know;" and then, gesticulating wildly, he said, amid loud sobs: "I loved that woman as I did my eyes. She deceived me. She had an accepted lover, and I did not know it. She gave me by mistake a handkerchief belonging to that lover. She had consumed my money."

Doctor Ball testified to the limited responsibility of the prisoner. "Hahn," he said, "occupies the very borderland of insanity; he is of so hysterical a temperament that he does not enjoy the full possession of his faculties."

The jury rendered a verdict of acquittal. On the reading of the verdict Hahn appeared astounded and stupefied for several minutes.

WIRING THE SEPARATED SYMPHYSIS PUBIS, SUPPLEMENTED BY A NOVEL PELVIC CLAMP.

By WILLIS P. KING, M.D.,
KANSAS CITY, MO.

I WOULD not deem it necessary under any circumstances to tire the patience of a body of physicians by going over the entire question of fractures of the pelvis, as an introduction to a paper of this character, and I deem it especially unnecessary before a body of men such as compose this association. I will, therefore, be as brief as possible by coming at once to the point. The object of the paper is to report a case of separation of the symphysis pubis, with fracture of the interposed fibro-cartilages, fracture of the descending ramus of the pubis, with deep lacerations of the surrounding soft parts, and, more particularly, to report the methods resorted to in order to support the pelvis and reinforce the sutures after the pubis had been wired together.

Bonnie Jacobs, aged twenty, single, a hearty, well-developed country boy, brakeman on a freight train on the Missouri Pacific Railway, while making a coupling at Harrisonville, Mo., on March 25, 1890, fell down with one leg under a brake beam, and the other over it, holding on to some part of the car with his hands, and was shoved about one car length, the brake beam crushing into the anterior portion of the pelvis, fracturing the descending ramus of the pubis, separating the symphysis, and lacerating the surrounding soft parts, as hereafter described.

He was received at the Missouri Pacific Hospital at Kansas City during the night following, and, as it was found upon examination that there was no hemorrhage, the parts were cleansed and packed with bichloride gauze, his urine drawn off, and he was put to bed until morning. On the morning of the 26th, he was placed upon the operating table and anæsthetized, and a careful examination made. The pubic symphysis was found to be separated about two inches, the inter articular fibro-cartilages were each broken into three or four pieces, the descending ramus of the pubis on the right side was fractured; the inner border of the adductor longus muscle was lacerated, and there were extensive lacerations of the soft parts above the pubic arch, exposing the bladder and extending on the right side into the right inguinal region. These deep lacerations above the pubis embraced the skin and all of the underlying muscles and tissues in the supra-pubic region down to the bladder, and extending upward to the right and left; but the lacerations on the right side extended somewhat higher up than those on the left. The fragments of the fractured cartilages were removed, and the centers of the opposing surfaces of the separated pubic arch were roughened with a chisel—the edges being

[1] Read before the Mississippi Valley Medical Association.

already roughened in the separation; then with a common drill and a small dental tool two holes were drilled in each side. These holes began about three-fourths of an inch back from the edge on either side, and the tool was permitted to emerge just above the inferior surface of the bone. A strong silver wire (the largest made) was then passed through each of these, and while an assistant pushed upon the pelvis from each side, until there was coaptation of the separated symphysis, the wires were twisted down, cut off short, the ends turned down and hammered in between the ends of the bones.

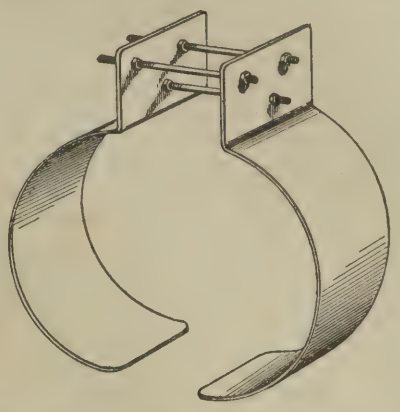
The bladder, having filled with urine during this operation, was emptied, and the deeper lacerated tissues were whipped, quilted and stitched over it with cat-gut. The irregularly torn integument was then drawn into position and closed with silk. Rubber drainage tubes were put in at appropriate points, so as to thoroughly drain the whole injured region.

Feeling assured that the two silver wire sutures in the pubic arch would not be sufficient to hold the symphysis together, the patient was then lifted on to blocks—the blocks being under the upper part of the thighs and lower part of the spine, a half-gallon rubber water bag was filled with water and laid over the pubis—covering the entire wounded surface. Two thicknesses of flannel were then thrown around the pelvis, covering about eight inches in width and passing over the water bag. Over this, plaster of Paris in crinoline was passed, and two perforated barrel hoops were worked in between the layers of plaster. The plaster was put on quite thick, so that there would be no spring in it after it set. After the plaster had hardened, the stopper was taken from the water bag, and the water emptied into a vessel between his thighs, and the collapsed bag removed. This left an ample arch under which to apply the dressings to the wounded parts.

This plaster support was kept on for twelve days; but, as he was delirious and the contents of his bowels moved involuntarily, the back part of the cast became so foul as to necessitate its removal. It was then cut away, and a drawing of a pelvic clamp was hastily made and sent to the company's shops. In the meantime a broad, strong bandage was applied around the hips, extending over the dressings. On the same evening the clamp was received and applied. This clamp was of steel plate, one-eighth of an inch in thickness, and was in two parts—each being fashioned after the plaster of Paris cast, which had been sent to the shops. Each part extended over the curve of the hip so that it would not slip up when tightened. The lower part rested on the bed, but did not extend under the body. Each part embraced the pelvis on its side, curved up and over to the iliac fossa, and then turned to a right angle upward. The flat surface of this part faced a similar flat surface on the opposite side, and when applied without being tightened were about five inches apart. Through these surfaces three holes were made in the form of a triangle, and bolts, with screws, cut on each end, passed through. The three bolts were necessary, because I knew that, with one or two bolts, the clamp would rock and would, therefore, not serve the purpose for which it was made. Taps were put both on the inner and outer side. The reason for this is obvious.

The hips being neatly padded, the clamp was applied, and the screws being tightened, it was found to be not only an excellent support, but that we could apply as much or as little pressure as was desirable. The supra-pubic wound (which had not all healed by the first intention) was dressed beneath the connecting rods.

This pelvic clamp was kept on until the thirtieth day after the injury, when, as it appeared that there were perfect union of the symphysis, it was removed.



The patient was delirious for twenty-eight days. He urinated in the dressings, necessitating a change of the dressings two and three times in twenty-four hours. Of course we had suppuration; but, as our drainage was perfect and permitted a thorough irrigation of the wounds, we were enabled to prevent the burrowing of pus, as well as to prevent the spread of septic material in the surrounding soft parts. For the first thirty days he had more or less temperature—the fever at one time rising to 105° Fah.

He was kept on a water bed from about the end of the first week until he was able to leave his bed as a convalescent. There was suppuration at the point of fracture of right descending ramus of pubis, and where a portion of the adductor longus muscles was lacerated; for a long time pieces of detached necrosed bone coming away at times. He left his bed for an invalid chair at the end of about five months. Within three weeks after this he began to use crutches, and ten days afterward he threw his crutches away and used only a cane. Now (for the last two weeks) he is walking up and down stairs—everywhere—without any support. He is growing strong rapidly, and, I feel assured, will in a short time be ready for any duty.

Drs. F. R. Smiley and Geo. F. Hamel, my house-surgeons, assisted in the operation of wiring, and Dr. Hamel took personal charge of the case, and the good result is due largely to his indefatigable and unwearying attentions at all times, day or night, when the patient's condition demanded it.

The case suggests some valuable points:

1. The operation of wiring in a case of separation of the pubic symphysis so completely coaptates the parts that it would seem that scarcely any other method of dealing with this condition can be equal to it.

2. The manner of applying the plaster of Paris support in the first place, with the use of the water bag to make an arch under which to dress the wounded parts, is new and original, so far as I know, and is a method that may be adopted and easily practised by any one who knows how to use plaster of Paris.

3. The steel hip clamp as a permanent support in separation of the pubic symphysis is also new, so far as I know, and is a means that may be adopted with benefit in any case of fracture of the pelvis, where immobilization of the fractured part will contribute to the comfort of the patient, and to the union of the fracture.

DR. R. J. LEVIS died, November 12, of pneumonia.

TREATMENT OF EPILEPSY.[1]

By PHILIP ZENNER, A.M., M.D.,
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IN order to judge properly the effects of remedies on epilepsy it is necessary to study the natural course of the disease, and how other influences than therapeutic measures modify the disease.

According to Nothnagel 4 to 5 per cent. of the cases of epilepsy get well without treatment. Various pathological processes may favorably modify the disease. Acute febrile processes sometimes cure it, and, generally, cause a temporary improvement. Injuries and wounds, or surgical operations are likely to be followed by lessened frequency, or a longer or shorter absence of the fits. A change of scene or place, entering an asylum or hospital, or the administration of a new drug, are likely to cause temporary improvement.

The success of therapeutic measures depends largely on the form of disease presented. *Grand mal* is much more amenable to treatment than *petit mal*. The latter, and cases with mental symptoms, are usually very intractable to treatment. The shorter the duration of the disease, and the smaller the number of attacks, the more favorable is the case for treatment.

The etiological factors are exceedingly important in relation to treatment. In all cases there is a constitutional vice, either hereditary or acquired, without which the disease would not exist. Besides this there is, in many cases, a peripheral source of irritation which, in a reflex way, excites the attack, and may even have produced the constitutional condition. Among such conditions may be mentioned injuries and wounds, disturbances in the digestive tracts, various genito-urinary diseases, eye strain, disease of the nasal mucous membrane, etc. Very often too much weight has been given to such conditions, and even harm done in their treatment, but we must also be careful lest we run into the other extreme, and give them no weight. Each case must be individualized and carefully treated on its own merits. But in all cases, whether such local disease be found or not, treatment for the constitutional condition should be applied, chiefly proper hygiene and hyrotherapy.

With this treatment we may succeed in many cases without further medication, especially when there have only been a few convulsions. But in the chronic cases we must add some of the anti-epileptic drugs. The number of such drugs which have been handed down to us is very large. The most important of those of the pre-bromide period are nitrate of silver, oxide of zinc, digitalis, and belladonna. Of these belladonna is the most used to-day, and is often a valuable adjuvant to the bromide treatment. Digitalis is more or less in use, being of greatest value in cases with weak hearts and feeble circulation. But the bromide treatment has supplanted all others to-day, and is far more effective in the majority of cases. As to the size of the dose there is great variability, some not bearing small doses well, while others can take four or five drachms daily for an indefinite period. There is but one rule to follow, to give large enough doses either to entirely control the disease, or to produce slight bromism. It is best to begin with small doses, one drachm two or three times a day, and gradually increase until the desired effect is obtained. Sometimes the medicine seems to lose its effects with time; then an increase is necessary. After learning what dose can be borne, or is effective, the medicine should usually be continued in same doses for a long time. When the convulsions only occur at stated periods, as during the menses, it is well to give large doses for a few days before the attack is expected, and in the interval give smaller doses. If no more convulsions appear, two or three years should be allowed to elapse since the last fit before beginning to gradually reduce the medicine. If the convulsions recur at times it may be necessary to continue the medicine for life.

The medicine should not be discontinued suddenly, unless for urgent causes, as such a withdrawal may be followed by severe recurrence of the disease. If it be necessary to reduce the drug for other reason than its long control of the disease, it is best to substitute the deficiency with some other anti epileptic drug. Seguin speaks very highly of chloral used for this purpose. He often substitutes from one fifth to one-half of the bromide dose with an equal quantity of chloral, and thinks the combination has a greater control of the fits, and less ill effects, than the larger doses of bromide.

The ill effects of the long-continued use of the bromides can often be averted with care. The disturbances in the digestive tract can often be avoided by very largely diluting the drug, preferably in alkaline waters. Cutaneous eruptions need usually not interfere with the treatment. Sometimes they can be controlled with arsenic. The blunt condition of will and intellect is often less noticeable after the system becomes accustomed to the bromide, or can be improved by slightly diminishing the dose. The same is true of the altered disposition, irritability, etc., sometimes manifested after the fits have ceased to appear. Any tendency to impaired nutrition may, perhaps, be avoided by administration of cod liver oil tonics and nutritious food, and a weak heart may be supported by digitalis.

If great attention is paid to details and the patient can be persuaded to persevere in the treatment—always a difficult matter—most cases can be benefited, and in quite a number a practical cure, and in a few an actual cure can be effected.

The bromide of potassium is the kind of bromide in most common use, and is very effective, but on account of its having a less depressing effect on the heart the sodium salt is often preferred. A mixture of the bromides of potassium, sodium, and ammonium is a favorite combination.

Other bromide preparations, bromide of gold, of nickel, etc., have, as yet, had no extensive trial.

A number of other drugs have appeared in the medical journals in the last year or two in connection with the treatment of epilepsy. Borax, though not a new drug, has been tried at many hands, in some instances with favorable effects, in others unsuccessfully. It is given in from ten to thirty grain doses. After long use it is liable to produce ill effects, as disorder of the alimentary tract, cutaneous eruptions, impaired nutrition, etc., which may be averted to some extent by largely diluting the drug, arsenic, cod liver oil, etc. The author tried it in a number of cases with apparently favorable effects, but the time is yet too short to tell any thing of its real value.

Amylhydrat was found very valuable in the status epilepticus. Antipyrine, antifebrine, and some other drugs recently used seem to have a temporary but not a permanent control over the fits. Probably many of these remedies will assist us where a temporary

[1] An abstract of a paper read before the Mississippi Valley Medical Association at Louisville, Kentucky, October 10, 1890.

suspension of the bromides is necessary, and perhaps they may prove to be of value in combination with the bromides. Amadel states that for four months no convulsions occurred in the asylum at Cremona since he combined the antipyrine with the bromides.

Surgical Treatment: Operative procedures which have been long cast aside, and ligature of the vertebral arteries whose value is, at least, doubtful, were brought into review.

Trephining for epilepsy is one of the oldest operations of surgery. At one time it was resorted to in any or all intractable cases. Thus brought into discredit for a long time it was scarcely done at all. To-day it is done with more discrimination.

It is now resorted to chiefly in traumatic cases. The success denoted by statistical tables is misleading. Most reports are made within a short time after the operation, whereas a number of years should be allowed to elapse before a cure is pronounced.

The author believes those cases to be appropriate for an operation in which the lesion is a limited one, its location ascertainable, and its removal possible; that is, the operation must have a distinct and definite purpose, the removal if a source of irritation. The location of the lesion should be indicated by either local symptoms, such as local pain or tenderness, reflex phenomena, convulsive movements, or fully developed convulsions produced by pressure over the source of irritation, etc., or nervous (cortical) symptoms such as monaspasm (Jacksonian epilepsy), monoplegia, aphasia or sensory, ocular, aural symptoms, etc.

The object of the operation should be the removal of the source of irritation, the extirpation of the entire area of the disease. In order to do this it may be necessary to remove, in connection with the cicatrix, surrounding brain substance.

Those cases are more favorable for a complete cure where the epilepsy is of the Jacksonian type, because it is more likely that the lesion is quite circumscribed, and that with its removal the disease will be eradicated. When the epilepsy is of the ordinary type there is the probability that the disease has been fully engrafted in the system and will not disappear with the removal of original source of irritation. For similar reasons there is a greater probability of success if the operation is performed soon after the injury than if performed at a later period.

Operations have also been made in a small number of non-traumatic cases where the disease was of the Jacksonian character. The idea is to remove the cortical center wherein the disease appears to be located. It is yet too early to say whether this operation will have a future.

SPONTANEOUS (NON-INSTRUMENTAL) ACCESS OF BACTERIA TO THE BLADDER

AND SLIGHT VESICAL INCOMPETENCE AS CAUSES OF CYSTITIS, ESPECIALLY IN THE FEMALE, WITH REMARKS ON TREATMENT OF THE RESULTING DISEASE.[1]

By R. VAN SANTVOORD, M.D.
NEW YORK CITY.

THE writer reviewed the literature of spontaneous bacteriuria, *i. e.*, of cases in which, in the absence of specific disease, bacteria for the most part indistinguishable by ordinary microscopic examination from those usually found in decomposing urine were present in freely passed urine. Stress was laid especially on a paper read by Dr. Wm. Roberts before the International Medical Congress in 1881, in which he distinguished between two forms of spontaneous bacteriuria, in one of which the urine settled clear after being passed; in the other it remained turbid, resembling urine undergoing decomposition. In the former the symptoms of vesical disease were cured or greatly relieved by salicylate of soda, the bacteria disappearing entirely or almost entirely with the relief of symptoms. In the second class no effect was produced on symptoms or bacteriuria by the same drug.

The writer of the paper cited cases from his own experience illustrating these two forms of disease, and confirming Dr. Roberts' conclusion as to the effects of the salicylates.

In two cases of the second form of the disease it was pointed out that for months before the development of acute symptoms the patients complained—in one case of foul smelling urine and slight vesical irritability; in the other, of slowness and effort in the act, the urine being turbid on being passed. Slight vesical atony, spontaneous invasion of the bladder by bacteria, whose multiplication in that organ was rendered possible by the residual urine and final transformation of slight irritation into an acute inflammation under the influence of apparently trifling exposure, seemed to be the most rational explanation of the clinical course of these cases.

The treatment consisted, first, in doing away with the vesical atony by the use of strychnine and cantharades, and possibly electricity. The tenesmus attending acute symptoms might in itself be a useful factor in stimulating vesical contraction. It should not be entirely suppressed by too free use of narcotics, nor should large vesical injections be used for the same reason. The bacteria would vanish when the bladder became able to fully empty itself, and when the products of inflammation which furnished appropriate nourishment for them ceased to be formed under the influence of appropriate treatment. Injections of antiseptics, strong enough to be bacteriacidal, were too irritating. All the bacteria were not reached, and the inflammation was aggravated by them.

The cases cited were probably common varieties of disease. The existence of slight vesical atony might be difficult to demonstrate in the female, and was probably more frequent than the current literature would lead one to expect. The recognition of bacteriuria, especially of the second variety treated by Dr. Roberts, was of value as pointing with great probability to this condition.

DR. VAN SANTVOORD'S PAPER.

Discussion.—Dr. Martin considered the cases reported by Dr. Van Santvoord similar to three that came under his observation. They were in females, and the condition of the urine in all three showed the presence of bacteria, and in two of pus. They were put on the internal administration of salol, benzoic, and boracic acid, three grains of each, four times a day, and all three got well. He mentioned this to bear out the statement that this condition is not so uncommon as was supposed.

Dr. Manley said that it was now the generally accepted view that bacteria are the exciting agents in the production of inflammation in those parts which have a direct communication externally, as, for instance, the pharynx, nasal passages, bladder, rectum, etc. Accepting this theory as valid, the treatment

[1] Abstract of paper read before the Harlem Medical Association October 1, 1890.

would be very simple. First, destroy these bacterial elements, and second, to prevent their multiplication or return. The great difficulty is to get something which will act as a bacteriacide, and not at the same time poison the individual. Then get the parts in such a condition as to make it impossible for the bacteria to thrive. Dr. Van Santvoord, he thought, placed very little reliance in direct applications—internal antisepsis of the bladder by internal agents. His experience in dealing with vesical troubles had been quite contrary to the doctor's in that respect. There were two things he found of great value in vesical irritation—drinking large quantities of water, which not only serves as a diluent in the bladder, but washes out whatever micrococci may lodge in the mucous membrane of that viscus, and next, the use of ordinary diuretics, such as buchu and squibbs. They know these act energetically on the kidney. He thought it would be well in cases that resist all medicinal treatment to resort to the method recommended by Dr. More Madden, of Dublin, giving rest to the sphincter by surgical interference, or do a suprapubic operation, as advised in the case of an adult by McGuire, of Richmond, Va. If the disease was of microbic origin, the way to do was to find the proper antiseptic, and then surgical interference would not be warranted. He had been very much instructed by the paper of Dr. Van Santvoord, and felt the association would appreciate its true value.

Dr. Van Santvoord stated in conclusion that he did not wish to be understood as advocating the view that spontaneous invasion of the bladder in these cases by bacteria was the sole cause of cystitis. He did not regard bacteria as the primary and only cause of cystitis. It was, of course, the general opinion that vesical atony was a predisposing cause of cystitis, and in the paper he wished to emphasize that he believed it to be *frequent*. He supposed bacteria get into the bladder when there was a little residual urine and multiply. Probably a slight amount of multiplication does no harm if there was not enough residual urine to set up irritation. As for the cases being common, he believed they were very common, and on that account were of interest. Dr. Roberts has stated there was a certain class of cases in which the salicylates were of the greatest value, while in others they were of no value at all. The difference between the two classes of cases was that in one there was probably considerable atony of the bladder, while in the other there was none. In the latter case it was, he thought, a question whether bacteria had anything to do with the symptoms.

Society Notes.

ALLEGHENY COUNTY MEDICAL SOCIETY.

Special Meeting, September 16, 1890.

G. W. Allyn, M.D., President, pro. tem., in the Chair.

Dr. W. C. Bane: On the 13th of February last, there was brought to my office, upon the recommendation of Dr. C. B. King, a rather delicate girl, whose vision was apparently very defective. Upon my record-book I find the following memoranda:

L. R., aged fourteen. Use of eyes for near work causes them to ache, also smarting of the eyelids. Dread of light, or photophobia, during the past three weeks. General health not good. Rather tall for her age, and anæmic. Had never menstruated. History of vision always being defective, but worse during the past year. Examination revealed slight congestion of the palpebral conjunctiva. Vision R. & L. E. $=\frac{1}{36}$ or $\frac{4}{140}$. With the ophthalmoscope the fundus of each eye appeared normal.

Office hours being up, I prescribed for the congested conjunctiva some boric acid in aq. menth. pip., with the understanding that she should return in a few days. February 20, I tested the eyes with lenses previous and under a mydriatic, with but slight improvement in vision. The patient seemed intelligent, and the eyes appearing to me to be quite normal, I was at a loss to know why the vision did not correspond. In my perplexity I placed in front of the right eye—the left one being shaded—a-4.50 D. cyl., which at axis 120° enabled her to see $\frac{1}{6}$, Snellen, the card being placed within a meter of her eyes, as beyond that distance she seemed unable to name any of the letters on the test-card. At this point I stopped and requested that she return in a week or ten days.

March 3, 1890. With the test-card at the proper distance, twenty feet, I commenced where I left off at the last examination, by placing the — cyl. in front of the right eye. At this time she could see $\frac{6}{60}$ or $\frac{20}{200}$. I now gradually reduced the strength of the — cylinder, by placing plus cylinder in front of it. Gradually the patient's vision came up, until when I had the equal of a plane glass in front of the eye, the vision was $\frac{20}{20}$, or normal. I next proceeded to correct the left eye, and in doing so proceeded as with the right eye, and when the lenses equaled a plane glass, she could see $\frac{20}{20}$. Her near vision was likewise quite normal. Without stating to the patient what glass was in front of her eyes, I wrote the following:

℞.—R. & L. Plano.
P. D. 60 mm.
Constant.

I now prescribed for her, with the consent of Dr. King, what is familiarly known as Basham's Mixture.

On March 10 the patient returned, eyes well opened, photophobia slight. Vision normal.

April 18. Patient has continued to take the tonic. General health much improved. Continues to wear the spectacles. Vision normal.

The case was an interesting and instructive one to me. She was so innocent in her manner, and seemingly honest in her answers to my questions, that I did not feel that I ought to say to her that I had reason to doubt her. The expense of the examination was being borne by a friend of hers.

Dr. Allyn: Two years ago a boy, but eight years old, was brought to my office complaining of trouble in seeing the blackboard in school. Without a glass before the eye he could not see the test-card, while a simple plane produced normal vision. On removal of the plane his vision disappeared again. This I repeated until satisfied that there was no trouble with his eyes.

Dr. Painter: I have a case with one interesting point. It is of a married woman, aged twenty-seven, who came to me with a history of suppurative tonsilitis. One tonsil went to the formation of an abcess, which broke, the other going through the inflammatory process, but not forming an abscess. A month subsequent to this she came to me complaining of a difficulty of deglutition and impossibility of swallowing liquids; they would be ejected through her nose; and in extinguishing a lamp the expired air would go through her nose, not out of her mouth. She had a marked nasal intonation. The soft palate was

abnormally flaccid, and insensible to the touch of the probe, as was also a portion of the pharynx. She was treated with electricity (the Farradic current), and was given strychnine, the doses being increased until the physiological action of the drug was brought about. The only point of interest in the case is that the suppurative form of tonsilitis had this sequel of paralysis. She got well speedily, as probably she would have without any treatment. She was pregnant seven months, and badly needed liquids, of which she was deprived by the paralysis, and rest to her mind, so that active treatment was indicated.

DR. W. C. SHAW: A child, born the 16th of July. A few days after birth the mother called my attention to a lump in its throat just above the hyoid bone. Some time afterward it increased in size, and I punctured it with a small instrument, and clear fluid passed through. I gave some syrup of iodide of iron and phosphate of lime, a few drops every day. In about two weeks she brought this child to me a second time, with this cyst refilled. Last night she brought the child in the third time. I opened the cyst, and, instead of a clear fluid, got bloody fluid. It might be called a congenital cyst.

A boy, eleven years of age, was picked up, injured in the collision of a buggy with an electric car. He was bleeding profusely from his nose and his left ear. He had laceration of both ears and a scalp wound. I remarked at the time that the boy might pass for one suffering from a fracture of the base of the skull. Two or three days after there appeared an ecchymosis on the left of the eyelid, and extending up over the forehead. I was dressing his ear and made a little pressure over the meatus, and he complained of severe pain in his ear. He was also deaf in the left ear; could not hear a watch tick an inch from his ear. He gradually recovered, and did not have serious complications, if he had fracture of the base of the skull. But now, to-day, I called at the house to make my last visit, and his mother spoke of his going down last evening from the steps to the pavement, and as he stepped on the pavement he complained of a jarring in his head again, and of quite a severe pain in that ear. I still think that boy has a fracture of the base of the skull.

While speaking of injuries in the region of the neck, I have lately noticed in cases in this neighborhood of cutting of the throat, that some of the surgeons have performed tracheotomy. I rather think that that is an addition to the injuries, and more likely to do harm than the original trouble. I do not think tracheotomy necessary. One hospital case I remember was a curiosity. Every time any one wanted to see the vocal cords work, they would go into the ward; we would remove this man's bandages, turn over his neck, and get him to exercise the vocal organs. We could see the vocal cords working nicely. Now, if that case had occurred in this neighborhood, some of the surgeons would have operated upon it and introduced a new danger.

DR. O'BRIEN: I am reminded to report a case which occurred in my practice a couple of weeks ago. A child was playing in a new building, and had climbed up a partly-built stairway and tumbled over to the ground below, a distance of fourteen feet, and fell upon some loose stones that lay there. I found the child had a contusion on the left parietal bone, and also at the temple. There was considerable swelling and a sub-cutaneous bleeding, so that the skin was quite tense over the point of injury, and I was unable to determine whether the skull had been fractured. However, there was complete right hemiplegia. The injury was on the left side of the head. The child could not move the right hand or foot at all. Was entirely speechless, and the tongue lay on the right side of the mouth, and if asked to protrude it, protruded to the right. The eye-balls turned to the right. There was no stertorous breathing. Believing that it was probably an injury to the meningeal artery, and hemorrhage, I suggested a consultation, and that Dr. McCann be called. He came in a few hours, and she was by that time slightly improved. She could just move the fingers of the right hand, but could not be induced to take anything in her hands. The doctor advised waiting, and after two or three days the movements began to return, and the child recovered ultimately complete use of the limbs. An interesting observation I made was that when it began to speak again it had not forgotten the nouns, as most cases of cerebral injury do. The child asked for what it wanted, and constructed a complete sentence the third day after the injury. I think that in the case there had not been much hemorrhage, and in all probability the explanation of it was that the blow received by the parietal bone had simply contused the cerebral substance.

DR. AYRES: In regard to Dr. Shaw's second case, in which he seems to think the boy suffered fracture of the base of the skull, I should differ with the doctor. It does not appear the symptoms were severe enough to venture an opinion of that kind. The vital centers are most likely affected in fracture of the base, and death is almost certain to result. I would mention here that a series of extremely interesting articles have been recently published in the *Lancet*, on fracture of the skull. In Dr. Shaw's case, I think some slight hemorrhage was the nature of the trouble. With regard to the case on which Dr. McCann did not operate, it was certainly an interesting one, and shows the importance of going slowly with regard to using instruments for cutting into the brain. I suppose many surgeons would at once have proceeded to operate. I am rather inclined to think there was in this case a little hemorrhage.

DR. MCCANN: The case was one in which there was probably a minute hemorrhage, or that condition which is recognized as commotion or contusion of the brain. At the time I saw it, the child had paralysis and loss of speech, but still there was nothing which warranted brain proceedings. We, therefore, deferred operation, with the result the doctor has stated. The bones of a child are so very flexible, breaking with such great difficulty as compared with the bones of an adult, that you can readily understand how a certain amount of bending or yielding under force might occur without an absolute fracture of the skull, and still lead to contusion of the brain substance, which would bring about a paralytic condition more or less permanent, but which is liable to be gotten rid of in children. The brain is likely to accommodate itself to pressure. In a simple fracture of the skull, even with some depression and without symptoms, I should hesitate about applying the trepine in a child, whereas in an adult I should not hesitate if there was a marked depression. Of course, in a compound fracture of the skull in a child, I should not hesitate resorting to operation and an endeavor to remove the depressed fragments of bone, if necessary, to give outlet to any blood which might be concealed, and should not hesitate to open the dura for the purpose of relieving the pressure. But where you have to deal with a simple fracture with marked symptoms, but without any positive evidence of fracture at a given point, I think it is well to go very

slow in operating upon a child. I remember an instance where the parietal bone was driven down upon the brain over the ear, in which the child lay insensible for three days, and which, after elevation and removal of the bone, the cerebral symptoms passed off, and the child recovered entirely. I reported to this society, a few years ago, an instance in which a large portion of the parietal bone was driven down on the right hemisphere of the brain, destroying the right motor center for the arm and for the leg and face, but not destroying the speech center, in which there was, I think, half an ounce of brain substance torn from the brain, with an immense tear in the dura, leaving a cavity into which I passed my little finger to search for fragments of bone in the brain. Without any expectation of recovery, I introduced a drainage tube into the brain and stitched the wound up. Very much to my astonishment, my patient recovered, and with power in the leg sufficient to enable him to walk. He has never recovered power in the arm. His speech has not been seriously affected. I cannot see that there is any necessity for treating a fracture of the skull as an open wound. The dangers of sepsis are very greatly increased, whereas by closing the wound and draining, thereby giving exit for any fluid which may flow out as a consequence of the damage, certain sources of danger are eliminated; and at the same time you can protect your wound effectually, so that you leave your patient very much as if he suffered from a simple fracture.

The Polyclinic.

MEDICO-CHIRURGICAL HOSPITAL.

FOR gonorrhœa Shoemaker advises cleaning the parts with a hot solution of common salt, and the use as an injection of three grains of corrosive sublimate to six ounces of water. Internally he advises the use of terebene in ten-drop doses three times a day, in capsule or on sugar. In a gleety condition the combined use of terebene and belladonna, he thinks is probably the best treatment. He instanced a case of gleet which had been treated by all the best venereal specialists in this country, which was finally cured by Ricord, of Paris, by the use of belladonna in one-drop doses four times a day, increased to three drops three times a day. Terebene, he says, has not only a most decided action on the gonococcus, but has also a soothing and sedative influence on the mucous membrane of the urethral tract.

In a severe case of acne associated with rosacea Shoemaker advised and prescribed as follows: Wash the face in hot water, as hot as can be borne. Drink a cupful of hot water upon retiring and upon rising. Have the pustules punctured by a physician; the incision thus produced will not cicatrize, whereas, if they are squeezed, they heal with a scar. Take internally:

℞.—Liq. potassii arsenitis,
Tr. nucis vomicæ.....āā gtt. lxxij.
Aloini..... gtt. ij.
Aq. menthæ pip.....q. s. f℥iij.
M.—Sig. f℥j ter in die.

Apply externally:

℞.—Acidi borici..... ℈j.
Lanolini..... ℥ij.
Ol. eucalyptol..... gtt. v.
Ung. zinci oxidi..... ℥j.
Bismuthi subnit..... ℥j.
M.—Sig. Ft. unguentum.

For a case of herpes induced by a remote traumatism Shoemaker prescribed, internally:

℞.—Ext. malt..... f℥j.
Elix. ferri lactatis..... .. ℥ss.
M.—Sig. This quantity thrice daily.

Externally, to allay the inflammatory action of the integument:

℞.—Cocainæ .. .. gr. ij.
Sulphuris subl..... gr. x.
Zinci carbonatis..... ℥j.
Marantæ..... ℥j.
Pulv. camphoræ..... gr. x.
Ung. aquæ rosæ,
Ung. zinci ox. benz.....āā ℥ss.
M.—Ft. ung.

A few pointers on the method of urethral injection: Never use a glass syringe. I give preference to Goodyear's rubber syringe, which has bulb shoulder on its nozzle, thus preventing the nozzle from entering too far into the urethra. Warm the injection fluid before using. Do not overfill the urethra. Never stroke under surface of urethra after injecting, as is advised in the books. Never use injections until the acute stage is passed. Never give injections which irritate or burn.—*MacConnell.*

Continue medication for gonorrhœa ten days after disappearance of all symptoms.—*MacConnell.*

MacConnell gave the following as the latest and best internal treatment for gonorrhœa:

℞.—Salol ..... ℥j.
Oleores. cubebæ..... ℥j.
Copaibæ..... ℥j.
Aluminis..... ℥iv.
Pepsinæ sacch..... ℥ss.
Ol. gaultheriæ..... gtt. x.
M.—Ft. capsul No. xx.
Sig. Two every three hours.

This treatment prevents the occurrence of gonorrhœal rheumatism. The salol is slightly decomposed by the gastric juice, but is actively decomposed by the intestinal juices into salicylic and carbolic acids, thus acting as an antiseptic in the urinary tract through which it is eliminated.

In delivering a child allow the membranes to remain intact until the head is delivered. The hydrostatic pressure of the fluid in the sac aids in the dilatation of the vagina and perineum.—*Montgomery.*

Where astringent injections are used in the vagina albuminates are formed, which accumulate and decompose unless the vagina is daily washed. For irrigation use solutions of zinc chloride, or of lead acetate, forty grains to the ounce.—*Montgomery.*

A granular vaginitis occurs in women of full habits. This should be corrected. Reduce their diet, otherwise topical treatment will be inert.—*Montgomery.*

Vagrant pains are either due to a toxic element floating in the blood, or to some systemic cause acting generally.—*Waugh.*

For an ulcer of the stomach Waugh prescribed 1-100 grain of the arsenite of copper to be taken after meals, continued for a long time.

Prof. Keyser is not to be prevented by dark and cloudy weather from giving a good, practical eye clinic. While abroad this year he purchased an electric illuminator, by the light of which he can perform all eye-operations, however dark the sky.

For a woman fifty-two years old, complaining of a loss of appetite, vagrant pains, flatulency, constipation and "load on stomach" after eating, Waugh prescribed as follows, with a view to increasing the digestive function and the peristaltic action of the intestines:

℞.—Maltine..... fʒss.
Cascara sagradæ..... ʒss.
Strychninæ sulph..... gr. $\frac{1}{60}$.
M.—Sig. One dose, repeated thrice daily.

Do not make cold applications to a crushed limb, lest sloughing be induced.—*Goodman.*

For a child, eight years old, suffering from debility after an attack of acute Bright's disease, Hollopeter prescribed the following:

℞.—Tr. ferri chlor..... fʒj.
Acidi acetici..... fʒij.
Strychninæ sulph..... gr. ½.
Liq. ammoniæ acet..... fʒiss.
Syr. tolutani.....q. s. ad. fʒiij.
M.—Sig. ʒj every four hours.

Inhalations of chloroform are invaluable in arresting convulsions in children of two years or under. Give them a whiff of it while in the convulsion. The paroxysm having been broken, the following should be given to prevent recurrence:

℞.—Sodii bromidi..... ʒj.
Chloral hydrat ..... ʒss.
Aq. menthæ pip.,
Syr. tolutani.....āā fʒiv.
M.—Sig. fʒss.; one every half hour until child is quieted down.

—*Hollopeter.*

Keyser presented a case of divergent strabismus, due to hypermetropia. As a rule, he said, divergent strabismus is due to myopia, while convergent strabismus is due to hypermetropia. Concerning the prevention of strabismus he remarked: "A child never sees anything sharply until it is three or four years of age, according to its precocity. If at this age any error of refraction be corrected, nature will correct the squint. There should be no hurry about operating. Glasses should be worn six months to a year before an operation is thought of. If you operate too early a squint the opposite of which you intended to correct may be the consequence."

In needling a soft cataract, known as the discission operation, the first operation should consist of but a gentle puncture of the capsule, made by a drilling motion of the needle. Better do a dozen such operations than to slit the capsule and lose the eye. The aqueous humor will pass through the puncture into the capsule, producing pressure and consequent absorption of lens.—*Keyser.*

In removing a dressing from an injured eye do not do so in a bright light.—*Keyser.*

A teaspoonful three times a day of the Elixir Ferri Pyrophosphatis will remove styes.—*Keyser.*

For eczema of the limbs, due to a varicose condition of the veins, give of the extract of hamamelis, gtt. xx., in a teaspoonful of glycerine, t. i. d., and apply the following ointment, supporting the limb with a bandage:

℞.—Beta naphthol..... gr. x.
Camphoræ ..... gr. x.
Ung. hydrarg. nit..... ʒij.
Ung. aquæ rosæ..... ʒj.

—*Shoemaker.*

For eczema marginata give hoang nan internally, and apply to affected parts:

℞.—Ol. cadini..... ʒj.
Acidi borici..... ʒss.
Ung. zinci ox. benz..... ʒj.
Hydrarg. ammon..... gr. x.
Ung. aquæ rosæ..... ʒss.

—*Shoemaker.*

UNIVERSITY OF PENNSYLVANIA.

IN a recent lecture on dyspepsia, Dr. Pepper said: "One of the most frequent causes of dyspepsia is the constant use of irritating substances, such as tobacco, alcohol, and highly-seasoned food. Tobacco and strong tea and coffee act both by depressing the nerve force of the stomach and, if swallowed, by directly interfering with the digestive processes. It will not be disputed by any fair-minded person that tobacco, tea, and coffee are injurious when taken in excess. It must be admitted that the majority of men, in a state of health, can use a certain amount of tobacco without injury. This amount varies with the individual, but is in any case small. I cannot speak too strongly against the filthy and disgusting habit of chewing tobacco. It is hard enough for a fastidious patient to endure a physician whose clothing reeks with the perfume of choice Havana cr cigarettes, but when the mustache is stained with tobacco juice, and the doctor is spitting while in the sick room, it is unbearable. No physician ought to be seen with a quid of tobacco in his mouth. There is no doubt that some men are benefited by a moderate use of tobacco. They are lacking in will power, and must have some vice or habit. The tobacco habit is the least harmful, makes them happy, and keeps them from something worse.

"The habit of expectoration is a distinctively American habit. It is seldom seen abroad, but is so common in this country as to invariably attract the notice of foreigners. It is an entirely useless habit, nothing being formed in the mouth during health that is not intended by nature to go into the stomach and aid in the digestive processes. Every bit of saliva ejected from the mouth is a direct robbery of the stomach."

Dr. Hirst gives as an equivalent of human milk.

Cream..... fʒiv.
Cow's milk..... fʒij.
Water..... fʒj.
Milk sugar..... gr. 1.

Sterilize by steaming for twenty minutes, and before using, add lime water, fʒij.

Dr. Hare gives for acute stage of bronchitis in children:

℞.—Tr. aconiti..... gtt. xij.
Syr. ipecac ..... fʒss–j.
Liq. potassii citratis.....q. s. ad fʒiij.
M. and S. One teaspoonful every three hours.

For the later stages:

℞.—Ammonii chloridi..... ʒj.
Ext. glycyrrhizæ fl..... fʒiv.
Aquæ dest.....q. s. ad fʒiij.
M. and S. One teaspoonful three times a day.

A favorite dispensary prescription for diarrhœa is:

℞.—Salol..... ʒij.
Bismuthi subnitratis ..... ʒiv.
Mist. cretæ.....q. s. ad fʒiij.
M. and S. One teaspoonful every two hours.

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WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

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ARE THE PROTOZOA IMMORTAL?

SOME years ago Weismann made the remarkable claim that protozoans were not subject to the ordinary laws governing animate objects, in that they did not experience death, except through accident. These unicellular organisms reproduce by bipartition; each half becoming a new creature; and as this process is continued indefinitely, there are really no deaths in the protozoan world, except such as were due to violence. The same thing is true as regards the sexual cells in metazoans. While the somatic cells in time perish, the sexual cells belong to the protozoan type, multiply by fission, pass from generation to generation, through the mediums of the fecundated ovum, and are hence immortal.

Quite recently, M. Maupas has attacked this theory, and claimed that natural death, due to senile decay, obtained among the infusoria. In 1860 Balbiani observed that reproduction by fission was limited by the simultaneous death of all the individuals belonging to the same cycle, by the renewal of life through the occurrence of sexual generation, thus beginning a new cycle, or finally by encystment, which causes a temporary interruption of the process of fission.

Now, Maupas shows that no element in the infusoria can live indefinitely and independently. The first visible evidence of degeneration is a reduction in the size, with change of contour. The nucleus is the first to undergo atrophy, and finally disappears. But, as Binet observes (*The Monist*), when the vitality of the infusoria has become weakened by a considerable number of organic reproductions, and the animalculæ are upon the point of dying a natural death, a new biological phenomenon can intervene, rejuvenating the organism, and rendering it capable of reproducing itself anew for a long series of generations. That phenomenon is fecundation. And since the substance, the protoplasm, of the rejuvenated individual escapes death, a new argument might be found in these last mentioned facts for the theory of the immortality of infusoria.

The question is at bottom whether the individual, after conjugation, is essentially the same as before conjugation, or whether it constitutes a new animal. In that the solution rests. Now, the new element that the individual acquires by the act of conjugation, is the male pronucleus of its partner. In addition, it loses the greater part of its old accessory nucleus, and the whole of its old principal nucleus. In return, by way of compensation, it preserves the integrity of its protoplasm and of its other organs. M. Gruber believes the physical identity persists in spite of these modifications. M. Maupas maintains the contrary.

The thesis of Weismann regarding the immortality of infusoria eludes a direct refutation. It is neither confirmed nor overturned by observed facts.

DIXON ON INOCULATION FOR TUBERCULOSIS.

ON Monday our reporter called at the Academy of Natural Sciences to see Prof. Dixon; who received him with his usual courtesy, but at the same time requested the privilege of proceeding with his work, as he was not blessed with a corps of assistants.

While he was busily engaged in making inoculations, he was asked what he thought of the results of Prof. Koch's latest experiments, as cabled from Berlin.

"Why, if it be true that he has cured human beings of tubercular phthisis, the result is most gratifying to all those who are working for that end, and, while I fully realize the possibility of his being able to do so, judging from the results of my own experiments, at the same time I am disposed to doubt the truth of the reports."

"On what grounds?"

"Because I believe Prof. Koch to be a man who is working, not only for the sake of science, but also for the cause of humanity, and that, had he arrived at results sufficiently definite to justify the inoculation of human beings, he would have announced the fact, not only to the bacteriologists of the world, but the whole of the civilized globe would have received a full detailed account of his methods, so that we might all take our part in relieving the great mass of suffering humanity."

"If the experiments are successful on animals, why should they not be equally so with the human family?"

"Because, sir, the more experience that physiologists have with the action of drugs on animals, the more they recognize that what is true of one group of animals is not necessarily true of another group, and to a limited degree this is the case with individuals. Micro-organisms are often innocuous to man, but virulent to animals, and vice versa. Take for example the great immunity that some races enjoy from yellow fever."

"Is there any plausible theory for the results that you are seeking to accomplish?"

At this point the Professor was becoming warmed up to his subject, and seemed anxious to enter fully into the question, but, as he was engaged upon some experiments which he was anxious to carry out at once, he asked the reporter to call later in the day, when he might be able to give him a paper dealing more fully with the results of his investigations than he was able to do at that moment.

Upon the reporter calling again, the Professor handed him the following answer:

"Many theories have been advanced, but none fully expounded. When, in my article in the *Medical*

and Surgical Reporter of September 6, 1890, I acknowledged that it was quite impossible to show how the immunity was produced, I only confessed our ignorance in regard to the processes producing immunity by inoculation. At the same time I have been directed by theories. When one of England's greatest medical men, Dr. T. Lauder Brunton, was delivering the Croonian Lectures at the Royal College of Physicians, of London, I was much impressed by the manner in which he treated the subject he was discussing, which was that of 'Chemical Structure and Physiological Action.' He referred to Mendelyeff, who had expressed the view that chemical affinities would soon be brought under Newton's third law of motion, and that according to this idea chemical compounds and solar systems are built upon the same plan. For example, he compared methane, which consists of carbon and four hydrogens, with Jupiter and his four moons. This pictured the atoms of hydrogen moving around the atoms of carbon. This he followed up by explaining the chemical constitutions with what he termed a homely simile—a penknife with a number of blades for various uses. When he first produced the knife the blades were all closed, representing an innocent arrangement, but as soon as he opened its many blades he reminded his audience that it had become a dangerous instrument, so that by altering the relative position of its parts without any change in its composition, there had occurred a complete alteration of its character.

"When Dr. Brunton had finished his simple, yet forcible illustration, my thoughts wandered to what was then my pet subject, namely, the prevention or cure of tubercular phthisis. I wondered whether or not a changed form of what we believed to be the tubercle bacillus was of the same composition as the usual forms found in animal tissues, but with its component parts holding a different relation to each other, and probably harmless to the animal economy, yet when held in such relationship capable of producing that which would break up the atoms of the tubercle bacillus.

"This was a speculative idea, which of course was not capable at the time of being worked up into a complete theory, but protracted experiments were commenced and followed out as energetically as possible under a very heavy strain at the University of Pennsylvania. During the work in this direction, which has been since uninterruptedly carried on, other theories have not been lost sight of, as for instance that of leucocytes and also that of phagocytes, which are thought to possess the properties of destroying bacteria; now in a great number of tissues they do not possess this power, unless they have first been educated to secrete by attenuated virus, a chemical product deadly to the pathogenic organism.

"Another theory is that the germicidal quality of the normal tissues is sufficient to combat pathogenic bacteria.

"Another most interesting theory is that advanced by Dr. J. W. McLaughlin, entitled 'An Explanation of the Phenomena of Immunity and Contagion Based upon the Action of Physical and Biological Laws.' The explanation of the phenomena of contagion, which one theory offers, is based upon the application of the laws of wave motion to the motion of complex organic molecules.

"The author states that the striking similarity which is seen between fermentation and contagion has led many observers to believe that the latter, like the former process, is caused by microscopic organism. As there are many kinds of fermentation, each kind resulting from the action of specific organisms—for example, alcoholic fermentation is caused by the yeast plant; acetic fermentation by the micrococcus aceti; butyric fermentation by the bacillus amblyo-bacter, etc.—so it is claimed that each specific infection has its specific bacterium or bacteria. I do not think that it can be claimed that only one species or variety of bacteria will produce a specific infection; for example, a specific infectious fever. It is well known that fermentation—alcoholic, acetic, or butyric—may result from the action of more than one kind of ferment, or bacteria. Hence, if the analogy between fermentation and contagion is sound, there are grounds for believing that more than one kind of bacterium may cause a specific infection; for example, diphtheria, cholera, and other infections may each be caused by one or more kinds of bacteria.

"He goes on to say that the principles involved in fermentation are the same regardless of the exciting cause, and that the products of fermentation will largely depend on the molecular structure of the exciting ferment.

"He then proceeds to point out the striking similarity in phenomena of fermentation, as set forth, and the phenomena of contagion. Both are caused by one-celled vegetable organisms; these cells in each case are microscopic in size, and can be conveyed from place to place in various ways that will readily suggest themselves, and, therefore, require no special mention.

"The cells of bacteria, like the cells of the yeast plant, excite fermentation and decomposition when they are suitably environed. In the same manner that yeast-cells decompose sugar into alcohol, the cells of the micrococcus nuthificans convert ammonia compounds into saltpeter, the cells of micrococcus lacticus convert sugar into lactic acid, and pathogenic bacteria-cells convert albuminoid molecules of the blood or tissues, of man and animals, into poisonous substances, ptomaines or toxines.

"And, again, as alcohol is poisonous to the yeast-cells, and will arrest the fermentation which they excite, and by which it was produced, so ptomaines and toxines, the product of infection created by the cells of pathogenic bacteria, poison the bacteria which caused their existence, and arrest the fermentation, or infection, which gave them life.

"And finally: As the yeast-cells can be so modified in their molecular structure that they can be caused to grow and multiply in malt solution without producing alcohol, in a similar manner the cells of some pathogenic bacteria can be so modified by 'attenuation,' in various ways, that are not only made harmless to man, but become a vaccine by which protection from the virulent microbes may be secured.

"In speaking of cells, he says: An elementary substance is the simplest known condition of matter. An atom is the ultimate part of such substance. A molecule is the smallest division of a compound substance, which has the properties of the substance.

"Each and every atom has a natural period of vibration from which it cannot be separated.

"Force, the efficient cause of all physical phenomena, is motion—of atoms, molecules, or of mass. Attraction, light, heat, and electricity are manifestations, or modes, of one and the same force; they are co-ordinate, and subject to the laws of transmutation of energy.

"As atoms have their equivalents of motion—for example, their laws of attraction, repulsion, and combination—which are inseparable from them, it

follows that, when atoms combine to form complex substances, each one carries into the combination its equivalent of force or motion; this may be modified by the motion of associate atoms, but is never lost, and when the dissolution of the compound takes place, the departing atoms carry with them the same amount and kind of motion which they had originally.

"All atoms, whether combined or uncombined, are in constant motion.

"The atomic motions of each element observe definite periods of time in their recurrence.

"Atoms of different elements observe periods of time in their movements.

"The author claims that the cells contain molecules, and that the molecular movements are governed by fixed laws, and are not the result of chance or hap-hazard action. He says: Picture in your mind's eye the marvelous mechanism of one of these little cells, with its contained molecules in active motion; each other by spaces which, although infinitely small to our comprehension, are really large when compared with the size of the molecules; remember, also, that the molecular movements are not of the hap-hazard sort, but are governed by fixed laws, and that while similarly-constructed molecules have similar modes of motion, there are marked differences in this respect between molecules of dissimilar construction. As the molecule receives its motion from its constituent atoms, the cell must receive its energy from its constituent molecules. Remember that atomic and molecular motion constitute force, so that when we speak of cell-motion we mean to imply cell-force, its power to do work, and the explanation which is offered will follow almost as an inevitable result.

"The explanation of differences in cell activities is based upon the law that force, the efficient cause of all physical phenomena, is motion—atomic, molecular, or molar; that heat, light, electricity, attraction, and repulsion are simply modes of one and the same motion, which can be converted and changed from one into the other. Now, there is a marked difference in the kind of work which these different forces or modes of motion can do. For example: Electricity can decompose many substances that light does not affect; on the other hand, light decomposes other substances over which electricity has no power; while heat, in its decomposing power, has a much larger range of action than either of the others.

"This can be the better understood by one of his illustrations. 'When waves of light, or heat, or water meet other waves of the same substance, in such a manner that the crests of one set will correspond with the crests of the other set, and the troughs of one will correspond with the troughs of the other, the waves will be enlarged—increased in amplitude.'

"Now, it is assumed that different varieties or species of cells have molecular vibrations, which, in their periods of recurrence, are distinctive of such species or variety; hence the molecular movements of cells are influenced in a certain way by other cells whose molecular periods of vibration coincide with those of the first in point of time. The wave-crest and trough from one cell striking the molecular waves of another cell less firmly fixed in its structure, crest to crest and trough to trough, the motions of the first would necessarily increase the swing of the second until the cell-molecules were swung beyond their attractions and the cell disrupted. The cell-molecules thus set free would recombine, in accordance with chemical laws, to form simpler compounds. For example, in the vinous fermentation, the molecular combinations of the yeast-cell are so timed in their motions that they can swing the molecules of sugar, held in solution, beyond their chemical attractions, and thus cause a disruption of the sugar; at the same time, the molecules or atoms thus liberated recombine to form a simpler compound—alcohol. Other cells cannot do this work, for the reason that their molecules do not vibrate in the required periods of time. In the same manner the micro-coccus aceti decomposes alcohol into acetic acid, and other bacteria perform their special kinds of work, and are incapable of doing the work of other varieties. In the same manner, pathogenic bacteria shake apart certain cellular albuminoid molecules in the blood or tissue of man and animals, while the recombination of molecules thus liberated form poisonous alkaloids called ptomaines and toxines, which are the immediate causes of the symptomatology and pathology of infectious diseases. The decomposition of albuminoid molecules by cell metabolism, principally bacteria cells, and the influences which the products of this action, ptomaines and toxines, have in the causation of disease, is a subject of greatest importance to the physician.

"'The albuminoid molecules, from whatever source derived, present certain lines of separation, like the lines of cleavage in crystals, along which they are most easily disrupted or shaken apart by cell-vibrations; hence the character of the decomposition product depends along which of these lines separation has taken place.

"'At least three distinct series of chemical bodies are formed, viz., an acid series, an aromatic series, and a basic series. Out of the innumerable products arising from the action of the bacteria-cells upon albumenoid molecules, and which have been extracted and studied, will be mentioned indol, cresol, and skatol, in the aromatic series; creatine, in the basic; and uric acid, in the acid series, serving only as mere examples.

"'Cells other than those of bacteria are also capable of decomposing albuminoid molecules, and thus produce poisonous substances, *e. g.*, in the physiological changes from albumins to peptones there is a change from innocent to toxic bodies; this may be illustrated by the hypodermic injection of the digestive leucomaine of fibrine by pepsin. It occurs practically when, after the too hearty meal, the liver is unable to care for the excess of digestive leucomaine, and they escape into the general circulation, producing somnolence, lassitude, or even stupor.

"'On this subject, Dr. Joseph Leconte says: The leucomaines, although formed by normal physiological process, are highly poisonous and inimical to health, unless speedily eliminated by appropriate organs. If, now, there should be a failure to eliminate these toxic elements, the results would be similar to those produced by disease germs, except that they would lack the quality of contagiousness, because they are not due to the presence of microbes. The liver is the organ principally concerned in the elimination of leucomaines.

"'If alkaloids, by the conjugation of "S" biliary acids, if carbohydrates, they escape the liver, and are taken care of by the blood and pancreas. If belonging to the class of phenols, they are combined with a sulphuric radical, and when that gives out are then combined with a glycosuric acid, and thus rendered innocuous.'"—*Journal of the Amer. Med. Association.*

"It is thus shown that fermentation may be the result of molecular motion, and that this process would take place whether the necessary vibrations originate in yeast-cells, bacteria-cells, or digestive ferments, which are the efficient cause of normal digestion. The principles involved in each case, the modus operandi, are the same in all. At this point, however, the similarity of results existing between the bacteria ferments and digestive ferments ceases. There is an important difference in their biological history, which carries with it an important and practical distinction. I refer to the fact that bacteria and yeast-cells are living organisms, capable of multiplying themselves by the generative act, and hence, in the case of pathogenic bacteria, are capable of inducing contagious and infectious diseases. On the other hand, the digestive ferments are molecular combinations, which have no powers of self-multiplication, and cannot cause disease of an infectious or contagious character. There is a wise and beneficent law of wide application, the operation of which controls the course and duration of infectious fevers; this law is based upon the fact that the products of cell-decomposition are poisons which destroy the cells, or the fermentation, or infection which they excite. Thus, alcohol is destructive to the yeast-cells and the vinous fermentation, while acetic acid, butyric acid, and lactic acid, will arrest the fermentation of which they are the products, and, in the same manner, ptomaines and toxines arrest the infectious diseases, of which they are severally the causes.

"On this subject Dr. Klein says: 'One of the most interesting facts observed in the growth of septic micro-organisms is this, that the products of the decomposition, started and maintained by them, have a most detrimental influence in themselves, inhibiting their powers of multiplication; in fact, after a certain amount of these products have accumulated, the organisms become arrested in their growth, and finally may be altogether killed.'

"Pasteur says: 'Many microbes seem to give rise during their breeding to substances having the property to be harmful to their own growth.'

"It is evident that the periods of time in which occur the molecular vibrations of any given cell, or molecular structure are before the first can swing apart the molecules of the second. Crest must correspond to crest, and trough to trough, before the one set of vibrations can sufficiently increase the other to cause its disruption. When the arrangement is complete *e. g.*, the vibrations of the bacteria-cell coincide in their periods of recurrence with the molecular vibrations of the albuminoid molecular substance, and decomposition of this results, thus liberating its constituent molecules. It is evident that no new compound can form from these molecules unless its periods of vibratory recurrence do not coincide in point of time with those of the bacterium cells, the same influence which disrupted the albuminoid molecules would prevent the forming of other compounds having the same periods of vibratory motion; in fact, they must be of an opposing kind, in order not to be influenced by the bacteria cells. Now, it is again evident that when a ptomaine, possessing a molecular vibration which antagonizes that of the bacteria, accumulates in a sufficient amount, the antagonism will be sufficient to arrest the motions of the bacteria cells, and thus put a stop to the cell-metabolism which they caused—in other words to arrest the disease.

"Perhaps this power, which waves or vibrations have of increasing or destroying similar waves or vibrations, may be better understood by reference to instances where waves of sounds and waves of light thus influence each other. Take, for example, two tuning forks which have equal periods, when sounded each will give out the same continuous musical sound. Let us, however, change the vibrations in one of the instruments, by attaching some substance to it, or in any other way. The two instruments will no longer vibrate together, the vibrations will not coincide in time, hence the sound that will be given off by them will no longer be a continuous musical note gradually fading away, but will be a rising and falling sound. When the two instruments vibrate together, the sound will be distinct. As one vibrates more rapidly than the other, they will gradually part company, and the sounds which they give out will coincide less and less in point of time as one gains upon the other, and becomes fainter and fainter, and disappear when the wave crest of one coincides with the wave trough of the other. After passing the line, the sound becomes gradually more and more distinct, until it again reaches its acmé, when crest and trough coincide to crest and trough of the other side, and thus the sound will rise and fall, depending upon the amount of wave interference or antagonism, until the vibrations are exhausted.

"It is thus seen that sound waves can be caused to so act upon each other that, instead of producing sound, they will cause silence. Illustrations could be given, if it were necessary, to prove that when waves of light are met by other waves of light whose periods of vibrations are one-half wave length behind the first, darkness will be the result. The waves of the one set are quenched or antagonized by those of the other, in accordance with the law of wave interference. This beautiful and important law was discovered by Dr. Thomas Young, one of the most remarkable men the world has produced. Speaking of this law, Sir John Herschel says: 'This principle, regarded as a physical law, has hardly its equal for beauty, simplicity, and extent of application in the whole circle of science.' The principles involved in this law of interference furnish an explanation why ptomaines are inhibitory, and sometimes poisonous, to the bacteria-cells which originated them. The amount of antagonism exerted by the ptomaines, in accordance with this theory, would depend entirely upon the extent of interference which its molecular waves would cause in the molecular waves of bacterium-cells. As the amount of interference in waves of sound and waves of light varies, and thus produces variable amounts of sound from zero up, there are ptomaines whose inhibitory power over the actions of cells differs in the same degree and from similar causes.

"Bacteria-cells, whose wave lengths do not coincide in periods of recurrence with those of any cells, blood serum, or tissue fluids of man, would for this reason be innocuous to man. At the same time they might find, in fluids or tissues of other animals, molecular combinations which these bacteria could disrupt, and for this reason they would be virulent to such animals.

"The third and last means by which immunity can be secured against an infectious disease, is by previously injecting its characteristic ptomaines into the individual, beginning with small amounts and gradually increasing the dose as the individual becomes accustomed to the poison, this means of immunity by the injection of specific ptomaines, is of recent discovery, and bids fair to become of great practical advantage. It already explains what had been previously very obscure, how the pregnant mother

gives immunity, for example, in syphilis, to the child in utero.

"It is generally admitted that solid particles, like bacteria-cells, cannot pass from the mother through the placenta to her child in a normal state of the placental tissues; hence, the fact of the child's immunity secured through the mother was not understood. That soluble substances like ptomaines can pass in this way by osmosis is not questioned, and in doing so explains how the child receives from the mother immunity from syphilis and other infectious diseases.

"To return to the investigations which I have been pursuing, I may say that I have not, in my line of practical work, followed out any one theoretical path. I have instituted micro-organic war. Thus I have pitted one kind of micro organism against another.

"I have dissolved germicides in predigested fat and added small quantities of bile, and injected it into the intestinal tract. My object in this was first to stimulate the glands to work, and at one and the same time bring the germicide, as nearly as possible in its nascent state into contact with the glands. The addition of the bile was with the idea of assisting absorption.

"I have also conceived a method of injecting germicides into the spleen with the object of reaching the blood corpuscles, when in a state of transition, with the chemical in an unchanged condition, and I am investigating the plan of passing virus through different animals for the purpose of finding conditions that would lessen the degree of virulence.

"Then again, I have produced tuberculosis in the skin of animals, thereby exposing the germ to a greater supply of oxygen and light than when growing in the viscera.

"Other methods are to attenuate preparations of the products of the tubercle bacillis growing on nutritive mediums, and inject them into the intestinal tract.

"The hypotheses advanced in my terse article in the *Medical News*, of October, 1889, have given the most brilliant results. Yet, I have never felt that the time had arrived for me to experiment on the human subject. Nor do I mean to be tempted to take any risks until the act would be purely an unselfish one. Even with the results that have been obtained in my laboratory, *I would be sorry to have the general public stimulated with the idea that inoculation for tubercular phthisis has been perfected.*

"Owing to the rumored report that Prof. Koch has been, and is inoculating human beings, it behooves me to await his results and understand his methods. Should his prove to be similar to my own, I will at once inoculate man.

"If, however, it should appear that he is working on different lines, and that his plan is less dangerous than my own, it will be welcomed and adopted by me."

Annotations.

THE Medico-Chirurgical Hospital, of Philadelphia, has always prided itself upon the truly charitable work done by it, and its freedom from those troublesome restrictions that sometimes hinder other institutions from extending aid to needy cases. An incident that occurred in New York November 5, fully illustrates the importance of this point. A driver fell from his seat and was run over, having both legs broken. An ambulance was summoned, but the surgeon in charge said he could not take the man to Roosevelt, as it was a case for Bellevue. The charity ambulance came next, but "the case was out of his district," and his hospital only "took cases of insanity and alcoholism." After the man had lain on the pavement for two hours and thirty-five minutes, he was at last taken away.

ENCOURAGE HOME SCIENCE.

WHEN we read of the encouragement Koch is receiving from the German government, of the clinical material, laboratory facilities, and funds placed in profusion at his disposal, we are constrained to admit that there are elements of value in the paternal style of government. Nobody grudges the little bit of the taxes that goes to such a purpose. But here, where everything is left to individual exertion, too often it is seen that what is everybody's business is assumed by nobody. The importance to humanity of such investigations as Dixon's cannot be overestimated. Not all the wars, nor all the pestilences, "since first the leaky ark reposed in mud," have destroyed a tithe of the lives that have fallen victims to the tubercle bacillus. Not a home exists but has put on mourning for some loved one dying from consumption. And yet not an effort is made to put our own countryman on an equality with the European investigators, as regards facilities for this work.

SIR MORELL MACKENZIE objects to large hospitals, on the ground that they are an unscientific anachronism; the aggregation of the sick in large numbers being as much out of place as intramural interment. The added virulence of germs from the bodies of numerous cases is to be considered more dangerous than that of those emanating from dead bodies.

Another objection to the large hospital is that the relief given by it is in a sense indiscriminate. The out patient department of hospitals is the greatest pauperizing agency now existent. From this comes the third objection—the cruel hardships entailed upon medical men in the neighborhood. He considers the special hospital in a large degree free from these and other objections, and favors the exaction of a small fee from dispensary patients.

While this would not in any degree relieve the neighboring practitioners, or obviate any of the above objections, as the fee must perforce be a level one and within the means of the poorest, it would greatly benefit the hospital exchequer. It may be safely said that in our goodly city of brotherly hatred there are none too poor to afford an occasional glass of beer. If a charge of five cents were made for every prescription filled, the aggregate would constitute a handsome sum. If the fee required were larger, there would be a serious diminution in the number of patients applying, unless all the large clinics were to unite in making a uniform charge.

Letters to the Editor.

I AM requested by the Hon. Secretaries of the Committee of Organization of the Seventh International Congress of Hygiene and Demography, to call attention to the fact that this Congess will be held in London during the week beginning August 10, 1891.

The governments of all countries and municipalities, and all public health authorities, universities, colleges and societies occupied in the study of the sciences more or less immediately connected with hygiene, are invited to coöperate and appoint delegates to represent them at the Congres. The Prince of Wales will preside.

A committee of organization has been formed, of which Sir Douglas Galton is Chairman, and Prof. W. H. Corfield and Mr. Shirley F. Murphy are Honorary Secretaries. An exhibition of articles of hygienic interest will be held in connection with the Congress. The last of these Congresses was held in Vienna in 1887, and was attended by over 2,000 persons, and it is expected that the London meeting will be one of great magnitude and importance.

JOHN S. BILLINGS, M.D.
Member of the International Permanent Committee.

Book Notices.

THE PHARMACOLOGY OF THE NEWER MATERIA MEDICA. Part VII. Embracing data upon Chian, Turpentine, Damiana and Jamaica Dogwood. Geo. S. Davis, Detroit.

ESSENTIALS OF MINOR SURGERY AND BANDAGING, with an appendix on venereal diseases. By EDWARD MARTIN, A.M., M.D. Illustrated. W. B. Saunders, Philadelphia, 1890.

VIVISECTION. By ALBERT LEFFINGWELL, M.D. New York: Jno. W. Lovell Co. Paper, pp. 95. Price, 20 cents.

The author advocates the restriction of vivisections, to the exclusion of experiments intended to illustrate physiological points already established.

A COMPEND OF HUMAN ANATOMY. By SAM'L O. L. POTTER, M.A., M.D. Fifth Edition, revised and enlarged, with 117 wood engravings, and appendix, and 16 lithographic plates of the Nerves and Arteries. Philadelphia, P. Blakiston, Son & Co., 1890.

Dr. Potter's compend has proved so popular that a fifth edition has been called for in three years. We do not know that we need say anything else about the book. The profession evidently stands ready to buy it.

MATERIA MEDICA FOR NURSES. Compiled by LAVINIA L. DOCK. G. P. Putnam's Sons, N. Y., 1890.

This is intended to serve as a text-book for nurses' schools. It contains much information that will prove useful to nurses, and a good deal that they can have no possible use for. The arrangement is bad, the division into inorganic and organic, with appropriate subdivisions, being of no value to any one. The matter in each topic is, however, pretty well selected.

BACTERIOLOGICAL TECHNOLOGY FOR PHYSICIANS, with seventy-two figures in the text. By DR. C. J. SALOMONSEN. Authorized translation from the second revised Danish edition. By William Trelease. New York: Wm. Wood & Company, 1890.

The objects of the author are stated to have been the preparation of an outline adapted to bacteriological courses for physicians and veterinary surgeons, and a guide for home study without an instructor. The simplest and easiest apparatus and methods are described; such as require an inexpensive outfit. For the practitioner's use, this book is well fitted, as containing what he can readily utilize, leaving more extensive works to those who make such studies their special work.

A MANUAL OF AUSCULTATION AND PERCUSSION. Embracing the Physical Diagnosis of the Lungs and Heart, and of Thoracic Aneurism. By AUSTIN FLINT, M.D., L.L.D. Fifth Edition; thoroughly revised. By J. C. Wilson, M.D. Illustrated with wood cuts. Lea Brothers & Co., 1890. Cloth, 12 mo., pp. 268. Price, $1.75.

Dr. Austin Flint was a master of this art, and had the rare faculty of expressing himself clearly in few words. The present edition has assuredly suffered nothing by the editorship of Dr. Wilson.

A PRACTICAL TREATISE ON IMPOTENCE, STERILITY AND ALLIED DISORDERS OF THE MALE SEXUAL ORGANS. By S. W. GROSS, A.M., M.D., L.L.D. Fourth Edition; revised by F. R. Sturgis, M.D. Philadelphia: Lea Brothers & Co., 1890. 8 vo., pp. 173. Cloth. Price, $1.50.

The name of the younger Gross will long be remembered from his work on the mammary gland, and the book before us. On its first appearance the present work was acknowledged to be the best on the subject then extant, and no subsequent work has deprived this one of its supremacy. The neglect of this group of diseases by the regular practitioner gives one of his most fruitful fields to the quack.

REGISTER OF PHYSICIANS IN PENNSYLVANIA BY COUNTIES, from July 1, 1881, to December 1, 1888. Taken from the Fourth Annual Report of the State Board of Health. Harrisburg, E. K. Meyers, State Printer, 1890.

It is greatly to be regretted that this register is incomplete; thirteen counties having failed to make returns. Indeed, scarcely any of the data was supplied by the county authorities, but was collected by the efforts of Dr. Lee.

Out of the report we gather that there are over 9,000 physicians in the State, or one to every 459 inhabitants, by the census of 1880. In some counties the law has been ignored; but two registrations having been made in Bedford and twelve in Lehigh. Of the 8,248 reported, 641 are of foreign birth; 384 of these coming from Great Britian and her dependencies, and 165 from the German empire. Out of 76 names on the first page, 8 are said to be illegally registered.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES. A yearly report of the progress of the general sanitary sciences throughout the world. Edited by CHARLES E. SAJOUS, M.D., and seventy associate editors, assisted by over two hundred corresponding editors, collaborators and correspondents. Illustrated with chromo-lithographs, engavings and maps. F. A. Davis, publisher. Philadelphia, 1890.

The third years' Annual will serve to keep alive the memory of La Grippe; as the editor states in his preface that the work was greatly hindered by the prostration of more than half the staff by that troublesome affection. No trace, however, is to be found in the pages of the five handsome volumes, of the debilitating influences of the great epidemic. On the contrary, the edition of 1890 is fully up to the standard of previous years. In a work of such magnitude it is inevitable that there should be inequalities. Good judgment in selection and skill in condensing are not so generally possessed by even highly educated physicians as to make all parts of such a work of the highest merit. But a careful examination of the Annual induces surprise at the general excellence of the whole work. It would be invidious to criticise the few lapses noted. Much valuable matter has been necessarily omitted, to keep the work in proper limits; and in some cases individual favor appears to have been consulted in the selection rather than merit. But this is inevitable, until the dawn of the millenium or the general

adoption of the Bellamy system inaugurates a new race of men, superior to ignoble influences. In the meantime, the Annual is a work of such value that we cannot see how a practising physician can do without it. It is a medical library and reading-room of exceptional comprehensiveness.

OINTMENTS AND OLEATES, ESPECIALLY IN DISEASES OF THE SKIN. By JOHN V. SHOEMAKER, A.M., M.D., Second Edition. Revised and enlarged. Philadelphia: F. A. Davis, Publisher, 1890. Price, $1.50.

In spite of the paltry attempt of the editors of the last edition of the U. S. Dispensatory, to ignore Dr. Shoemaker's work, his name will be associated with the oleates as long as they are employed in medicine. Although Dr. Shoemaker was not the first to employ the oleates, nor, we believe, has he ever claimed priority in their use, it was he who directed the attention of the profession to these therapeutic agents and gave them the wide popularity they now enjoy. The present edition gives the result of five years' additional experience on the author's part. In addition, he has extended the scope of the work by including a consideration of ointments in general; including those in use here and in the leading countries of Europe.

We regret that in the well-written chapter on ointment bases, no mention is made of mollin or of oleite, both which are important when the absorbability of drugs from ointments is considered. The numerous prescriptions are in English; and between this and bad Latin the choice is easily made. But as long as we have a Pharmacopœia the better way is to follow it, for the sake of uniformity. The substitution of *official* for officinal is objectionable on the same score. The European formulas serve to show how far their pharmacists are behind our own. Some of their ointments are fearfully and wonderfully made; as, for instance, the following, known as "Noah's Ointment:"

℞.—Basilicon ointment,
Althea "
Laurel "
Mercurial "
Poplar "
Oil of hypericum,
Myrrh,
Petroleum,
Oil of lavender,
Oil of turpentine, of each, equal parts.

In a former number we have given examples of greater value. The author does not take an enthusiastic view of the oleates, but claims for them a "prominent place among the more scientific means for treating" diseases of the skin.

The reader will find many good things in the book; enough to pay him many times over for its cost; in fact, it is one of the works which will not idly occupy its place on the owner's shelves, but will soon be ornamented with frayed edges, dog's ears, and other evidences of use, by an appreciative owner.

The Medical Digest.

IN spite of all efforts, fevers are rapidly spreading in London.

PEROXIDE OF HYDROGEN is said to quickly relieve pruritus vulvæ.

TO relieve pain by hypnotism, and thereby render the patients hysterical, is to cast out Satan by Beelzebub.—*Germain Sée.*

HANNON, (*Med. News*) details two cases of vesical calculus, in the successful treatment of which, Buffalo Lithia Water was a prominent factor.

NOCARD finds that strychnine does not hinder the development of tetanus in animals after injections of tetanus poison have been given, as Peyraud claimed.

BOKAI reports two cases of scarlatina in which the incubation did not exceed sixteen hours. The children were admitted to the hospital for diphtheria, and in sixteen hours the scarlet eruption appeared.

SALOL IN CHOLERA.—Macrae, in the *Indian Medical Gazette*, records his experience with salol in twenty-five cases of cholera. The mortality was 60 per cent., and the author considers the drug a failure, unless as a prophylactic and in the very early stages.

FOR EXCESSIVE VESICAL TENESMUS.—

℞.—Benzoic acid	. . . . .	4 parts.
Borax	. . . . .	6 "
Water	. . . . .	180 "

M.—S. Three tablespoonfuls a day.

—*Med. Press.*

DIGITALIS.—The indication for the use of digitalis is not a murmur in the heart, nor a certain form of valvular lesion, nor tumultuous action, nor yet rapidity of action, but whenever it is desirable to fill the arteries and empty the veins.

—Dewees, *Kansas Med. Jour.*

MCSHERRY'S GARGLE.—

℞.—Zinci sulphat.		
Acid. carbolici	. . . . .	āā gr. v.
Glycerini	. . . . .	℥ss
Aquæ	. . . . .	℥iijss.

M.—S. Use as gargle, three or four times a day.

—*Baltimore M. and S. Record.*

A SEDATIVE FOR BABES.—

℞.—Camphoræ monobrom.	. . . . .	gr. j. ij
Ext. hyoscyami fl.	. . . . .	gtt. v. viij.
Syr. lactucarii	. . . . .	℥ij.

Tere optime, fiat mistura.

S. A teaspoonful as needed.

—*Ex.*

TORSION OF ARTERIES.—Murdoch (*Weekly Medical Review*) speaks as follows of torsion: The advantages of torsion as compared with ligation are: 1. The greater facility with which it can be applied. 2. Torsion is a safer method, being less liable to be followed by secondary hemorrhage. 3. Healing is facilitated, because the wound is free from any irritating or foreign body.

TOBACCO IN HERNIA.—Spalding (*Texas Courier-Record*) describes a case of acute inguinal hernia in a man thirty years old. Chloroform and taxis, with inversion, failed to effect reduction. A strong decoction of tobacco was injected into the rectum. In fifty minutes there was great prostration, feeble pulse, retching, and full tobacco narcosis. Examination then showed that the hernia had disappeared.

PILOCARPINE IN DERMATOLOGY.—Klotz, in the *Journal of Cutaneous and Genito-urinary Diseases*, describes two cases in which pilocarpine proved useful. The first was a case of squamous eczema, with dry, hard, resistant, slightly scaling skin. Injections of pilocarpine were employed with much benefit. The other patient had eczema squamum and

rimosum of both palms, which were covered with a very hard and thick horny skin. Little progress was made towards a cure until the pilocarpine injections were used.

The author's conclusion was that the use of pilocarpine in pachydermatous and xerodermatous conditions of the skin is strongly indicated, and deserves to be subjected to renewed trials, but in small doses and long continued, as recommended by Pick.

EHRLICH'S TEST FOR TYPHOID FEVER.—Make two solutions, one consisting of 72 minims hydrochloric acid and 10 grains sulphanilic acid in 3 ounces distilled water; the other, a freshly-prepared ½ per cent. solution of sodic nitrite in distilled water. To 26 parts of urine from a typhoid fever patient, add 25 parts solution 1, and 1 part of solution 2, and the mixture is rendered alkaline by addition of ammonia. A bright orange-red color appears.

SALOL IN TYPHOID FEVER.—Whatever the differences of opinion as to the cause of typhoid fever it is pretty definitely settled that, after a certain stage, the disease is a septicæmia, due to the ulceration of Peyer's glands. The natural tendency of the fever is to terminate about either the fourteenth or the twenty-first day, and when an intestinal antiseptic, such as salol, is used, which prevents the ulceration from infecting the system, the natural tendency to recovery is increased.—Cahall, *Med. News.*

KANSAS FERTILITY.—The wife of John Bean, of Valley Falls, aged sixty-five years, gave birth to twins on Monday evening. Her daughter, Mrs. Stratton, who lives in a neighboring township, presented her husband with twins the same evening. Mrs. Stratton's daughter Eva was married a year ago and lives in Arrington. The friends were not yet through congratulating them when Mrs. Stratton heard that her daughter had given birth to twins herself on Monday evening. The three double births occurred within ten minutes of each other.

—*Kansas Med. Jour.*

RIDER'S BONE.—Schmit gives, in *Revue de Chirurgie*, a review of this subject. The name is given to an osteoma developing in the muscles of the thigh in horsemen. In one of his two cases the affection was bilateral. It has been found in the adductors, pectineus, gracilis, biceps, and psoas; and occurs almost constantly in cavalry soldiers, being developed in the early days of their training. It is due to injury, and develops in two to sixteen weeks. Once formed, it does not enlarge. It interferes in variable degree with duty, and is easily and successfully removed.

—*Brit. Med. Jour.*

WOUNDS OF THE LUNG.—It seems to the writer that we have, in the case of gun-shot wounds of the lung, a condition closely analogous to similar wounds of the abdomen; we have the same dangers to meet and overcome, modified merely by peculiarity; our means of meeting these dangers are more direct in the case of the abdominal wound than in the pulmonary, but, nevertheless, we have such means in the free incision and drainage as above proposed; therefore we are, from a surgical standpoint, justified in employing this procedure, and it is the firm belief of the writer that, if used, we may look forward hopefully to the result, and that the prognosis in such cases will be much bettered thereby.

—Axford, *Med. Standard.*

ANALGESIA is a frequent symptom in insanity, and its importance is largely due to the fact that its presence is a menace to the physical well-being of the patient. Its etiology and pathology being yet but little understood, it is certainly worthy of more extended and careful study. As, apart from paresis, epilepsy, and in a lesser degree in dementia, its presence cannot be predicted in any case, but must be sought for; and as further it is not incompatible with comparatively high grades of intelligence, it is well to look for it in every case. And, finally, if it proves to be at all frequent in the early stages of alienation, a new and valuable aid to diagnosis will be at our command.—Keniston, *Amer. Jour. of Insanity.*

MAGRUDER, in *Practice*, reports the removal of a large vesical calculus per vaginam. The stone was immovable, the bladder appearing as if contracted around it. A pair of tooth forceps was employed to break up the concretion, and detritus washed out with a fountain syringe. The stone filled up the pelvis as a fœtal head would, and a vesico-vaginal opening had been produced, which was utilized in the operation. The patient made a good recovery.

TOWNSEND (*Archives of Pediatrics*), employed bismuth, sodium salicylate, lactic acid, and resorcin in summer complaint; the result being expressed in the following words: "I am inclined to be rather skeptical as to the value of these antiseptics in the treatment of summer diarrhœa." Lavage of the large intestine with tepid water gave better results, ten out of thirteen cases showing marked improvement.

ARISTOL.—I have drawn the following conclusions, after observing its action during the past five months:

1. The drug is free from all objectionable odors.
2. When used over large surfaces, you obtain all of its medicinal effects without any toxic effect. It is not absorbed.
3. It possesses stimulating, alterative, and anæsthetic properties; the latter effect less marked than that obtained from iodoform.
4. It does not produce any discoloration of the skin.
5. On account of its dark color, you can readily observe how far the powder has been used on a diseased surface.
6. It is not irritating, and its use is not contra-indicated in the treatment of facial eruptions, as chrysarobin and pyrogallic acid.
7. It appears to possess the necessary properties to make it an efficient substitute for iodoform.

—McLaughlin, *Va. Med. Monthly.*

CHRONIC, SO CALLED RHEUMATIC AFFECTIONS.—When the term chronic rheumatism is used, it should be limited to those cases in which the joints are painful but not swollen, or in which there is a neuralgia or an arthralgia associated with myalgia or apart from it; or in which the fasciæ are affected, or in which there is a general neuralgic condition supervening on an acute attack of rheumatism. This is what we prefer to call "chronic rheumatism." But in speaking of the symptoms of rheumatoid arthritis, I will make reference to those symptoms which are sometimes put down as common to both. Let us imagine two patients sitting side by side, one with chronic rheumatism and the other with rheumatoid arthritis. Now, what do we see? In the rheumatoid arthritis case the first thing that strikes us is most probably the pallor of the patient, as compared with the chronic rheumatic. We look a little closer, and the

next thing we perceive will most probably be the joints. The patient with the chronic rheumatism will present in this feature little or nothing; whereas, on the other hand, the rheumatoid arthritis patient will be more or less crippled. There will be distinct muscular atrophy in the rheumatoid arthritis case, and the complexion will present the pallor mentioned before, showing on closer inspection yellowish tinges on the face, neck, and perhaps elsewhere. If we ask both patients if they ever had rheumatic fever, they will probably say No; but further inquiry will elicit the probable fact that the family history of the patient with rheumatism will be a good one, or perhaps at the most a rheumatic one, while the rheumatoid arthritis patient in most cases gives or shows a strumous taint. It is upon the basis of this strumous taint that we feel we must look for further assistance to guide us in the treatment of this terrible crippling malady. It is nearly always present more or less. We are aware that this strumous history has not been particularly referred to in other descriptions of the disease. It being the almost invariable accompaniment has induced us to bring the matter forward. In fact, to look upon struma and rheumatoid arthritis as cause and effect, has seemed to us the one plain characteristic in our investigations.—Lane, *The Lancet.*

Exercise in Pelvic Diseases of Women.—Kellogg, in the *Medical News*, thus advertises his sanitarium:

The propositions which I shall undertake to maintain in this paper are the following:

1. That defective muscular development is a prime factor in the etiology of a large number of the pelvic disorders to which civilized women are subject.

2. That the mode of dress common among civilized women is a cause of deficient and asymmetrical muscular development.

3. That the dress commonly worn by civilized women is productive of such disturbances of the relations and functions of the abdominal and pelvic viscera as directly lead to the production of functional and structural changes in the uterus and its appendages.

4. That properly-graduated exercises, with adjustment of the clothing that will permit free and unrestricted movements of every group of muscles in the body, are of great importance in the management of a large class of pelvic disorders.

For Neurotic Incontinence of Feces.—Take of:

Strychnine crystals	gr. xvj.
Acetic acid, dilute	ʒiv.
Alcohol	ʒiv.
Tr. cardamom comp	ʒj.
Water to make	ʒxvj.

M.—S. Take ten to twenty minims with an equal amount of fl. ext. ergot after each meal.

Before retiring I had him cleanse the lower bowels with a hot decoction of hydrastis canadensis. The strychnine was given as a nerve tonic; the ergot was for tone to the circular muscles; the heat as a stimulant to the bowels; the hydrastis as a tonic and healing agent to any catarrhal or ulcerated condition which might be present, and the water as a vehicle and cleansing agent. The results of four months' treatment are that when the patient is careful of his diet he has but one movement of the bowels every twenty-four hours, and that at the time of the injection of the decoction of the hydrastis. He says if he guards his diet and cares for his treatment as directed, he never has more than one action per day.

—Mendenhall, *Med. Standard.*

Marriageable Age of Females in India.—In a discussion on this subject at the Calcutta Medical Society (*Indian Medical Gazette*), Mrs. Foggo presented a report, from which we take the following: "In no other country have I seen as many cases of derangements of the generative organs as since I have had charge of the Lady Dufferin Zenana Hospital—infantile uterus, absence of ovaries or uterus, or both—and, after strict inquiry, I feel myself justified in putting it down to pre-menstrual copulation." Her conclusion was that the marriageable age for females in India should be fixed at fourteen years.

Bolye Chunder Sen claimed that the prevalent belief concerning early puberty in India was erroneous, except where precocity was induced by child-marriage and early sexual excitement. In the Brahmo community, he found that out of 65 girls, 2 menstruated before the twelfth year, 3 during the twelfth, 29 during the thirteenth, 26 during the fourteenth, 4 during the fifteenth, and 1 during the sixteenth year. It was also a fact that the eruption of the teeth occurred somewhat later than in England. He advocated sixteen years as the minimum age for the consummation of marriage.

The Cincinnati *Lancet-Clinic* makes the following comment on Dr. Bartholow's retirement:

"Notwithstanding the slack of tension, some months ago tidings were borne to us of erratic conduct that passed beyond the bounds of eccentricity and clearly indicated symptoms of an unsettled mental equilibrium. The weakest link was sagging.

"A sense of sorrow for the surely coming wreck locked 'the news' from the public. We felt that a giant intellect was tottering, an intellect that had given its very life to scientific and clinical research was dying, its light was becoming a shadow; until, at last, the public have 'the news.'

"A pall of mournful sadness comes over us as we contemplate the thought of this termination of such a career as that of the indomitable, the gifted Dr. Roberts Bartholow.

"A lesson, a parting lesson, is hereby taught, and should be thoroughly heeded by those who feel the iron grip of an insatiable ambition that is inordinate in its character, that leads and goads the discontented to a violation of physiological laws in order to be able to accomplish some specific purpose that may be ever so laudable in motive. To some we say: Slow up, lest a link be weakened and the golden bowl broken."

Total Blindness Following Shock—Recovery.—November 18, 1889, I was called to see a boy of six years, who had become blind the day before. The boy had been exceptionally rugged and active. October 23 he had had a transient attack of headache and vomiting. November 4 he had a transient attack of what seemed to be a cold, accompanied by wandering rheumatic pains in the feet and limbs. November 12 a mild tonsillitis with a temperature of 101°. November 14 the mother fell down stairs; the boy was greatly frightened, and was soon seized with a severe headache followed by epistaxis and relief. Light diet had been ordered, but on the 16th he was so well and so hungry that he was allowed to eat a large piece of beef-steak for supper. The following day he had a convulsion followed by total blindness.

Status præsens, November 18—nervous and restless, but does not complain of pain. Answers questions slowly, but intelligently. Sensibility is

much diminished in the extremities. The pupils are moderately dilated, and both react slightly to light, but the left less than the right. The ophthalmoscope shows no changes at the fundus. Small doses of calomel and iodide of potassium were ordered. November 20, vision began to return, and two days later was fairly good. December 3, there is some anæsthesia of the hands and feet as well as diminished control of them. The arms and legs are considerably shrunken, and at times there are pains in the latter. The right pupil reacts sluggishly to light. Vision is good, and the fundus normal in both eyes. There is headache at times, but the boy eats and sleeps well, and is steadily improving.

At the present time Dr. Murray reports the boy as entirely recovered.—Brown, *N. W. Lancet.*

Acute Epiphysitis.—In March, 1890, a youth, aged fourteen, was supposed to have had an attack of acute rheumatism. He came under my care three weeks after its onset, with the usual signs of acute synovitis of the hip, very ill, and with a temperature of 101°. A few days afterwards some pus was removed with an aspirator from the neighborhood of the hip. For a day or two afterwards the local condition improved, but in the meanwhile it had been ascertained by cultures that the pus contained staphylococcus aureus. The temperature continued high (101.8°), and the boy was losing ground so rapidly that the hip-joint was explored by an anterior incision. There was pus both within and without the joint, and the upper epiphysis of the femur was only joined to the shaft by some soft inflammatory material, which was afterwards found to contain micrococci; the ligamentum teres and the acetabular cartilage were intact; but the articular cartilage of the femur had partly disappeared without any caries of the bone. The head of the femur was removed, and the wound drained and treated in the usual way. The dressing was renewed on the fifth, ninth, and fourteenth day, and then replaced with a dry dressing, under which the wound healed within six weeks after operation.—Lockwood, *Brit. Med. Jour.*

Piscidia Erythemia.—It can be used in many troubles, chief among which is neuralgia, facial, cardiac, gastric, or ovarian. In the ovarian and cardiac types it seems to be particularly efficacious. In pain about the heart, associated with rheumatism, it is reliable. In ovarian neuralgia and neuralgic dysmenorrhœa it has worked wonders, relieving pain and having little or no effect upon the bowels. In some cases of bowel trouble, characterized by retained indigestible matter, extreme pain, and nervousness, a dose of fifteen drops of the piscidia extract has quieted pain and nervousness, and at the same time interfered in no wise with the expulsion of the disturbing element. In cystitis it has been a sovereign remedy, controlling the tension and severe burning pain in short order. In incontinence of urine it has been happy in its effects. Many reflex coughs are dissipated by its exhibition. In the intense nervousness and distress shown by men on the verge of delirium tremens it has done remarkably good work. I have used it in half-drachm and drachm doses, and induced quiet and restful sleep. Whenever an intolerance to opium is shown, there seems to be an unusually good field for the exhibition of piscidia.

I have as a rule used it in doses of from five to ten drops, very seldom exceeding that. I have seen several cases in which eight drops, repeated once in three hours, caused most alarming symptoms, such as heart failure, cold skin, dyspepsia, inability to swallow, and a bluish condition of face, lips, and finger tips. It should be used most cautiously, and the dose increased as you obtain an idea of the patient's ability to stand the drug.

—Pitcher, *Detroit Emerg. Hosp. Reports.*

Excretal Dermatitis.—Walsh, in the *Medical Press*, thus summarizes a paper on this subject. His propositions are:

1. That dermatitis may be set up in a certain number of cases by the excretion of irritant products from the system.

2. That such irritants may be either chemical or due to specific micro-organisms and their products.

3. That many of the inflammations of the hypoblastic as well as of the epiblastic tissues are simply expressions of excretory irritation.

4. That the severity of the inflammation, and consequent damage, is in proportion to the specific effect of the irritant upon excretory epithelium.

5. That excretory parallels may be drawn between drugs and specific disease-poisons, both as regards their channels of elimination and their harmfulness to epithelium.

6. That while excretion affords the key to a certain number of skin inflammations, it also accounts for the success of many well established methods of treatment which aim at shifting the channels of elimination. At the same time it affords a rational basis for further therapeutic measures.

7. Finally, some observers trace the tendency to catarrhal troubles—the "eczematous condition"—to an unstable epithelium. Others refer them to disorders of the nervous system, such as trophoneuroses. While freely admitting there are wide differences of predisposition in individual skins, yet it seems probable that the dermatitis is not infrequently an excretionary symptom secondary to a blood condition.

Galvano-Cautery in Corneal Diseases.—A few minutes after the instillation of a few drops of a 5 per cent. solution of cocaine, there is complete anæsthesia of the corneal layers, so that the approach of the red-hot loop, or its repeated application (which is usually accompanied by considerable hissing and sizzing) causes no painful sensation.

The operator separates the lids, and applies the heated loop to the infected zone, making and breaking the current by the simple pressure of a button on the handle of the electrode.

In a short time we observe a surprising change. The adjacent corneal tissue gains increased transparency. The turbid aqueous becomes clearer. The trifling pain following the operation soon ceases. If there is hypopyon it is speedily absorbed. The zone of infiltration rapidly recedes and fades. And in many cases within the next twenty-four hours such an improvement will be manifested as to show the destructive process to be at an end, and the process of repair already begun. However, if after twenty-four hours the ulcer shows a tendency to extend, a similar "touching" should be again resorted to.

The loop should be applied until the masses of detritus clinging to the floor and sides of the ulcer are destroyed. The bordering infiltration for a short distance should also be destroyed; none of this parasitic material should be allowed to remain; it should be completely sterilized. If this be done a recurrence need not be feared, for it is a fact now universally admitted, that the development of spores becomes impossible on sterilized soil.

The treatment by the galvano-cautery, as outlined, secures benefit to the tissues in a threefold way:

1. It separates rapidly and thoroughly the parts already involved from the yet healthy tissue.

2. It averts the extension of the infection, and makes the adjacent tissues aseptic.

3. It stimulates the tissues to take on a healthy reparative process.

Especially applicable is the galvano-cautery in the treatment of rodent ulcers, in which every new point of infection demands its prompt destruction. Here we require a white-hot tip sufficiently delicate to allow of the nice manipulation necessary for working in a district of no more than a millimeter in extent. And this is only possible with the galvano-caustic loop, which is brought to a red heat at the exact moment when it was needed, and cools as quickly, and produces no annoying light effects by the glowing of the wire.

It is also highly serviceable in scrofulous ulcers of the cornea, which show a deep crater-shaped excavation, with sharply cut edges, accompanied by a light grade of ciliary irritation and muco-purulent conjunctival secretion, and which defy all therapeutic agencies.

It is applicable also in those ulcers due to the entrance of foreign bodies.

And, lastly, in the chronic indolent ulcer, painless and apparently lifeless, showing no tendency towards a reparative process, the galvano-cautery is an efficient agent to stimulate and bring about a healing process.—Magee, *Kansas Med. Jour.*

Changing Pessaries.—As far as I am aware, no change whatever is made in the size of a pessary worn during the time occupied in the treatment of a case of chronic retroflexion or retroversion. Nor are there any directions given in the latest text-books on the subject of gynecology to this end. As a rule, a pessary—when found to fit and give relief to the most marked symptoms of discomfort of which the patient may complain—is allowed to remain without change for a considerable period, and when removed, either for facility of examination or for cleansing, is almost directly replaced should the flexion or version for which it was originally introduced be still found to exist (though it is to be hoped in not so marked a degree). I consider that the ground gained by the wearing of a properly-fitting and well-adjusted "Hodge," is not fully taken advantage of *unless another slightly longer is substituted for the one worn, at regular intervals*, till a degree of ante-version is obtained, so that when eventually the pessary is finally removed, there will be far less likelihood of any return of the uterus to its original abnormal position. Again, the length of time occupied in the treatment of such cases will be considerably shortened by the change of the pessary.

The very important point of endeavoring to replace the uterus as nearly as possible in its normal position *before introducing a pessary* is often overlooked. The knee-elbow position will be found the best, either for manipulation or the introduction or removal of the pessary, unless contra-indicated by some pectoral or cardiac lesion.

The practical advantages I have found by adopting this plan must be my excuse for publishing this paper.—Duke, *Med. Press.*

Diphtheria from Animals.—I found out the following practical cases, pointing to the direct infection of children from hens affected with diphtheria:

1. In Corrientes street, a child, two years of age, died in the month of January. The house had a single story, and had a back yard without pavement. A few days before the child took ill two of the hens which were kept in the house had ulcers in the throat.

2. In California street, two children, one two years old, the other four, died in the month of March. The house was a lodging-house, and had a back yard without pavement. A few days before the children died two of the hens which were kept in the house died, having "made a strange noise with their throats" during their illness.

3. In Europe street, a child, three years of age, died in the month of April. Lodging house, with back yard, without pavement. A month before the child died the hens sickened with an "affection of the mouth."

4. In Salta street, a child, nine years old, died in the month of April. House had a back yard, without pavement. Three weeks before the child, several of the hens died with "ulcers in the throat."

5. In Talcahuano street, a child died from diphtheria (all these cases that I am relating died from this disease). This child was in the habit of playing all day in the back yard, where the hens were kept. In those days when the child sickened, several hens died from an affection, where the "throat was swollen, and membranes were extracted from the nostrils."

6. In Jehallos street, two children died of diphtheria in the month of May. Back yard without pavement. A month previous to the death of these children the hens suffered from ulcers in the throat.

7. In Belgrano street, a girl, sixteen years of age, died of diphtheria. The yard was paved, but imperfectly so. A hen house was kept in the yard. A few days before the girl died two of the hens had suffered from ulcers in the throat.

8. In San Antonio street there is a large lodging-house, where several children had died of diphtheria at different times. There is a yard without pavement. The man in charge of this house informed me that it is a common thing for the hens kept there to suffer from ulcers in the throat.

9. A physician in Buenos Ayres lives in a two-story house. On the ground floor a hen house is kept on one of the "patios." One day he saw one of his children playing amongst the hens, and, reminding that he had once assisted at a fatal case contracted from a diphtherial hen, he called out to his child to come upstairs. Next day the child sickened with diphtheria, and subsequently died. It was found that the hens at the time were suffering from ulcers in the throat.

These cases which I have selected would of themselves point strongly to the direct infection of children from hens and other animals; but, taken in conjunction with recent observations made in England and on the Continent, they are a strong testimony to the truth of the theory which ascribes diphtheria in animals to the presence of a damp soil, and diphtheria in the human subject to contagion from animals so infected. I do not for a moment wish to state that diphtheria in the human subject has no other origin than that just mentioned. It is, however, ascertained that diphtheria in the human subject may be due to dampness, to the removal of mixed deposits of vegetable and animal matter after they have been in intimate union for some time, to infected milk, and lastly, but very rarely, to infected water.

Davison, *Brit. Med. Jour.*

CONCERNING POSSIBLE THERAPEUTIC USES OF HYPNOTISM.—I am not very sanguine as to the future of hypnotism as a curative agent in nervous or other diseases. According to my own researches—and those researches date back eight years or more—the method is vastly more limited than one would imagine from the exaggerated claims which have been of late advanced in its behalf by over-zealous medical men. Let me mention a few of those limitations. In the first place, only a certain (unknown) percentage of persons are amenable to the hypnotic influences, or, to express it more exactly, only a limited number of persons are hypnotizable with the present means at our command. Secondly, the effects obtainable are evanescent; for, unless we hypnotize the patient so often as to incur the risk of doing him an injury, we cannot hope to perpetuate the suggestions sufficiently to do any good.

From these considerations it follows that the permanent effects which one may hope to produce upon the material economy through this class of psychical forces must be insignificant. Functions may, it is true, be exalted or depressed for the time being, but qualitative changes in the structures themselves are impossible. The internal capsule, the thalamus, the motor convolutions, the sensory tracts in the cord once destroyed, are not to be restored by any form of interference. Moreover, a physiological substitution (in Bernheim's sense) for these and analogous structures, seems well beyond the farthest bounds of physiological probability. Hence, as I have previously mentioned, all attempts to apply hypnotism to the treatment of organic disease are opposed to sound thinking. Indeed, I regard such proposals as hurtful to science, and particularly medical science, inasmuch as the reputation of the profession for sound judgment is thereby greatly jeopardized. The facts which the advocates of such questionable methods have to present are still too few in number, and too meagrely substantiated, to form the basis of affirmative argument. What then is the position which hypnotism may be expected to assume in the neuro therapy of the future? In my opinion the rôle which it is destined to play is a subordinate one. In the light of its present and past history, I do not see how it can be otherwise. As an adjunct in the management of minor degrees of hypochondria, morbid apprehension, depression, and hysteria, it may sometimes be invoked, but then only as a collateral expedient, and largely with a view to rendering the patient more tractable and amenable to other elements in the plan of treatment. The aid afforded by an appeal to the expectancy of the sick is familiar to every physician; by invoking the aid of the hypnotic state such an appeal may be made with an energy which is not attainable while the patient remains in the ordinary mental condition. But, while the miracles recorded by enthusiastic writers make, like Munchausen's tales, entertaining reading, they are not likely to enter into the sober realities of the consulting room.

In view of what we now know of it, hypnotism is to be dealt with by the physician; for it is evident that a competent medical man is alone in a position to judge of its real or imaginary advantages. Certainly, only such a man should be allowed by our statutes to invoke its assistance in the treatment of diseases, however insignificant.

—Corning, *Med. Record.*

SPINAL CONCUSSION.—In closing a discussion upon this subject, at the American Medical Association, Dr. Clevenger said he had been astonished at the improvement of some patients after the settlement of damage claims, but this seemed to be due to the relief from worry which the conclusion of the suit afforded; but it would be presumption to affirm that such cases were *entirely* cured until years had elapsed and unprejudiced opinion been engaged. This "quick cure by settlement" savored too much of the unscientific assertion of Herbert Page, who was the most ordinary special pleader for railways.

While both Dr. Gapen and Dr. Judd had been opposed to Dr. Clevenger in recent suits against corporations, and seemed to look at the matter from one standpoint, the latter had frequently been called as expert for either side, and sometimes for both sides at the same time.

The statement that there were no vaso-motor centers in the spinal cord, and hence the symptoms were cerebral, was rather surprising, when the sympathetic system is so intimately united to the spinal all the way down the cord length, and such ordinary matters as constipation and hemorrhoids producing brain troubles show that such "vaso-motor" difficulty as emotionalism need not have its origin necessarily in the head.

The intimation that subjective symptoms were always false, when made the basis of claims against railways, is on its face absurd. Physicians have to judge from the consistency of symptoms whether they were real or not.

Contrary to Dr. Gapen's findings, Dr. Clevenger had devoted all his spare time for three months in analyzing Erichsen's cases, and found an abundance of objective signs in all. But it depends upon what is meant by "objective." To the uneducated the galvanometer and electrical indications convey no meaning. Paralysis and insanity of the gravest kinds would present nothing "objective" to the biased witness. There are cases in which no honest opinion can be reached, and in such it is best to allow the mind to remain a "scientific blank," as Huxley advises. Only the untrained imagine they must have a positive opinion upon everything under the sun. Sometimes a little waiting will determine matters.

A case examined a year ago presented nothing but purely subjective symptoms, and to day there is atrophy of an arm. In another instance a laborer fell partly into a coal hole, with one leg in and the other out, and after a year is unable to do any work, but there was such an utter absence of anything in the way of electrical or other findings, and so many of the ordinary symptoms of Erichsen's disease were missing, that Dr. Clevenger told the lawyers that everything depended upon the credibility of the witness, and he preferred having nothing to do with the case as it stood at present.

We find many instances, in and out of the books, of fatal issues among patients accused of malingering. We occasionally find a conscientious railway surgeon who acknowledges that railway accidents do not always improve health, and that a few dollars' settlement will not resurrect the dead.

—*Jour. Amer. Med. Assoc.*

ANTISEPTICS.—The antiseptic plan of testing typhoid fever has only of late occupied the attention of medical men. This plan of treatment has grown out of the germ theory concerning the disease, and I am inclined to the opinion that it is the only rational way to treat this trouble, since we pretty well all agree that it is essentially a germ disease. Now, I do not claim, by any means, that as yet we have a specific absolute for typhoid fever, but I do say that, as sure

as there is any certainty in medicine, *there is a specific* for typhoid fever, and I believe with our modern antiseptic practice the disease is as capable of being cut short as many other diseases about which we raise no question as to their abortion. If we accept Mendenhall's and Waugh's theory, that the symptoms of typhoid fever are caused by decomposition in the bowel—and I am sure it is the most rational—how can we believe otherwise than that it is cut short by remedies preventing such putrefactive changes? True, we may not prevent it after such change has *actually* taken place, but even then many of its distressing symptoms may be cut short, or even prevented. The distressing nervous symptoms, such as delirium, subsultus, etc., are now by some of the most distinguished men regarded as the invasion of the products of germ action, and in proportion as these germs increase will their product increase and these symptoms be aggravated. Now, then, if by modern asepsis we prevent the formation of the germ, or by antisepsis we destroy the germ, and such productions, with their destructive results, cease, what goes with the theory of self-limitation? Will the remedies do this? Why not? Will they not prevent putrefaction and decomposition in other cases? Why not in this? If they will in other circumstances, most certainly they will in this. What are the remedies most likely to do this, and at the same time that are not hurtful in other respects? First of all I put mercury. Why? It has been a custom almost as long as we have had any knowledge of medicine to give mercury on the beginning of all febrile disorders. This practice has been routine and empirical in most ca es, and yet a world of good has come from it. All authorities agree that our own systems have in them a laboratory which produces a substance far richer in antiseptic powers than almost any compound dispensed at the hands of the most skilful chemists, and this substance we call bile. It is a fact that it will prevent decomposition in the alimentary tract as nothing else will. So, then, in order that we shall have the quickest and most successful disinfection of the bowel, we must stimulate the liver to thrown out an extra amount of this fluid, and there is nothing that will more successfully do this than mercury in some form, besides it in itself is highly antiseptic. The preparation I like best in these cases is the protoiodide in 1-100 grain doses every hour till its effects are produced. Many times I use calomel in small doses with good results. Who knows but that the old dose of calomel has aborted many a case of typhoid fever by this means. I believe it, although given with an entirely different purpose. Next to mercury comes zinc sulpho carbolate, sub-carbonate of bismuth, naphthaline, resorcin, carbolic acid, iodine, the mineral acids, etc.; preferable among these I like the sulpho carbolate of zinc in two or three grain doses every two or three hours. I have found it an excellent remedy, especially when there is an astringent antiseptic needed.

—Broughton, *N. C. Med. Jour.*

RAPID AND EASY METHODS OF ESTIMATING UREA AND SUGAR IN URINE.—The apparatus for the estimation of urea consists of a pipette with one graduation, and marked 1 c. c., and a graduated tube about 1 c. c. in diameter and about 30 c. long, and closed at one end.

The process depends upon the decomposition of urea by hypobromite of sodium, producing nitrogen, carbon dioxide and water. The two latter bodies remain in solution, while the nitrogen escapes. The measure of the nitrogen is depended upon to calculate the weight of urea which produced it.

I use two solutions, and mix them when used. These are a twenty per cent. solution of potass. bromide and Labarraque's solution of hypochlorite of soda, which, when mixed, produce the hypobromite of soda and chloride of potassium.

The graduated ureometer is filled to the sixth mark with the solution of potass bromide, then to about the fifteenth mark with Labarraque's solution, and finally to about the twentieth with water. With the pipette add 1 c. c. of urine, and close the ureometer with the thumb and invert a few times to mix thoroughly. When effervescence ceases the height of the liquid is noted; the open end is then plunged into a vessel of water, the thumb removed, the tube is lowered until the surface of the water within and without the tube are on the same level, and another reading taken. The difference between the two readings gives at once the number of grains of urea in each fluid ounce of the urine under examination.

The graduations of the instrument represent grains per fluid ounce when 1 c. c. of urine is taken.

For the estimation of sugar, the solution used is Fehling's, with a small quantity of potass. ferrocyanide to prevent precipitation of red oxide of copper. By this procedure we are better able to see the discharge of the blue color of the copper solution. The apparatus consists of a short burette, terminating in a comparatively wide delivery-tube, beveled at the end. The delivery-tube passes through a cork in the neck of a flat-bottom flask of four ounces capacity. Another tube, bent at right angle, passes through the same cork, for the escape of steam. The burette is graduated in c. c. and also with a second graduation, representing grains per fluid ounces, when 5 c. c. of Fehling's solution are taken.

The process is performed as follows: Fehling's solution is poured into the burette until it is filled exactly to the 5 c. c. mark, which, on the burette, is marked F. A 1 to 20 solution of potassium ferrocyanide is added until the 7 c. c. mark is reached.

The stop-cock is now opened and the liquid allowed to run into the flask. The burette is filled with water, and this is allowed to flow into the flask. The apparatus is now put upon a sand-bath, and allowed to come to a boil. The burette is now filled to the zero mark with the urine to be examined, and added carefully until the blue color of the solution in the flask is discharged. The exact point is easily seen. It is only necessary to read off the grains of sugar per fluid ounce on the left-hand graduations.

In most cases of diabetes it will be necessary to dilute the urine to about five grains per ounce after a preliminary test. This is easily done in the burette. We may simplify the preparation of the solution by adopting the following formula for the preparation of Fehling's solution, which is now usually made in two parts and mixed when needed for use:

SOLUTION NO. 1.	
Copper sulphate	34.65 c. c.
Dist. water	500.00 "
SOLUTION NO 2.	
Rochelle salt	1.73 c. c.
Caustic soda	200.00 "
Potass. ferrocyanide	50.00 "
Water	500.00 "

For use, mix equal quantities of these two solutions, measured out with the burette. I have had but a few months' experience with the keeping power of Solution No. 2; but, so far as I have tested it, there is no reason for not adopting this formula.

—Bartley, *Brooklyn Med. Jour.*

FRENCH NOTES.

By A. E. Roussel, M.D.

Sudden Death Following Simple Catheterism of the Uterus for the Production of Abortion.—M. Gibert communicates the following observation to the Medico Legal Society: A woman, four months pregnant, resolves to have an abortion produced. The woman to whom she addresses herself introduces into the canal of the cervix of the uterus a small rubber syringe. But at this moment, and before having made the least injection, the patient, who has partaken of a copious breakfast one hour before, is attacked by syncope, which becomes more severe, and is followed by death in five minutes.

It is possible that the fact of having indulged in a copious repast was an unfavorable circumstance, as the abortionist — who admitted having performed more than one hundred abortions—desired to postpone the séance until another day. It is also remarkable that a simple injection of liquid is sufficient to detach the membranes.

The autopsy revealed no lesion whatsoever; it is therefore probable that the death by syncope was due to a phenomenon of inhibition, already observed in cases of a similar nature.—*L'Union Médicale.*

Iron Pills (Huchard).—

℞.—Extract of cinchona,
Extract of gentian,
Extract of rhubarb,
Potassi tartrate of iron . . . āā 72 grains.
Extract of nux vomica . . . . . 3 "
Oil of anise . . . . . gtt. v.
Glycerine, q. s.
For one hundred pills. Take two pills before each meal.

—*La Bulletin Médical.*

Aristol.—*1. Solution in Ether:*

℞.—Aristol . . . . . 150 grains.
Ether . . . . . ℥ij.

2. Collodion:

℞.—Aristol . . . . . 15 grains.
Collodion . . . . . ℥j.

3. Pomade:

℞.—Aristol . . . . . 150 grains.
Olive oil . . . . . ℥iij.
Lanoline . . . . . ℥ij.

4. Crayons (Sibieciki):

℞.—Aristol . . . . . 75 grains.
Gum Arabic, q. s.
For five crayons. To be introduced into the uterus.

5. Suppositories:

℞.—Aristol . . . . . 7½ to 15 grains.
Cocoa butter, q. s.
For one vaginal suppository.

—*Bulletin de Thérapeutique.*

M. Decroix mentions the deleterious influence of tobacco on the functions of generation. He supports this affirmation by numerous observations, and concludes by demanding that the academy formulate a law preventing the use of tobacco before the age of sixteen years.—*La France Médicale.*

The Constant Galvanic Current in Gynæcology.—Dr. Apostoli delivered an address at the Berlin Congress, of which the following are the general conclusions and summary:

1. The constant galvanic current is principally indicated in gynæcology, in endometritis, and in fibroma; the sovereign treatment in painful and circulatory troubles (amenorrhœa, dysmenorrhœa, and metrorrhagia), it is a powerful remedy for arresting the evolution of non-malignant neoplasms, and aids the reabsorption of extra uterine exudations. It exercises a very salutary resolutive action in many peri-uterine inflammations, and in certain catarrhal ovaro-salpingitis, but it is inefficacious, and even hurtful in large doses, particularly if the intra-uterine pole is without action against the suppurating inflammation of the annexes.

Its variable intolerance, which increases with the inflammatory condition of the annexes, should serve as a precious means of diagnosis, to determine the existence and the nature of peri-uterine liquid collections (hematic or suppurating) unsuspected or simply doubtful, and should serve to hasten in those cases delayed or refused surgical intervention.

2. The effects of the constant galvanic current are polar and inter-polar. The inter-polar action, trophic and dynamic, which increases as the square of the intensity furnished is added to the polar action; the latter is utilized first by the different action of each pole, which Apostoli has made known, then the calorific action developed by the passage of the current (to augment the intestinal circulation), and finally the antiseptic action of the positive pole, which Apostoli and Laquerriere have recently given experimental demonstration.

3. The elevated galvanic applications, employed in various ways, above 50 milliamperes, according to the tolerance of the patients, and other clinical indications form the fundamental basis of the method of Apostoli and find their justification:

(*a*) First in the utilization of the circulatory drainage, direct consequence of the calorific action due to the resistance of the passage of the current, and proportionate to the square of the intensity.

(*b*) In the antiseptic action or microbicide, which increases with the intensity produced.

(*c*) In the rapidity and efficacy of the effects produced, which are proportional to the square of the electrical energy, after an analogous formula, to that of the measurement of the energy of other natural forces: $Q = \frac{1}{2}$ m b 2.

(*d*) In the generalization, more easy of method in rebellious cases (hard fibromas, and sub-peritoneal, endometritis, etc.) and in young women.

(*e*) In the eloignement of the relapses, which, other things being equal, will be that much less to be passed, the more intense has been the application.

4. If the vaginal application of the galvanic current (which is the method created by M. Chéron for fibromas only, and applied since by A. Martin, Braeht, Meniere, Onimus, Carpenter, Mundé, etc.) produces results, they are very inferior to those of the intra-uterine application, which should remain the method of choice:

(*a*) Because it utilizes above all the maximum of the current produced, and of its energy.

(*b*) Because it utilizes the antiseptic action of the positive pole which is altogether local, and which is done away with in the inter polar circuit and at the level of the negative pole.

(*c*) Because it often adds a diurative and caustic action to the intra-uterine application, thus treating at the same time either a simple endometritis, or the endometritis which so often complicates fibroma and the peri-uterine inflammations, insuring in this way a more rapid cure, more complete and more permanent.

(*d*) Because it furnishes, to a better extent than vaginal applications, the relief of pain, and renders

more tolerable the employment of high doses, and finally it assures a greater efficacy in rendering possible an increase of the intensity applied and the sanguine irrigation which accompanies it.

5. Vaginal punctures made at a depth of a few millimeters (from 2 to 5) by means of a filiform trocar of gold, insulated in all its extent excepting at the point, forms the complement often very salutary of intra-uterine therapeutics, created by Apostoli, in better localizing the galvanic action and in rendering more efficacious, in certain cases, the application of small and moderate doses.

6. The innocuity of his intra-uterine therapeutics affirms for itsef: First, as compared with the bloody method of intra-uterine curettage, and particularly as regards the statistics furnished by the entire world as compared with his own. From July, 1882, to July, 1890, he has made 11,499 galvanic applications, distributed as follows: 8,178 intra-uterine positive galvanic caustics; 2,486 intra-uterine negative galvanic caustics; 222 vaginal galvanic punctures positive; 614 vaginal galvanic punctures negative.

He has treated 912 patients, comprising 531 fibromas. 133 simple endometritis, and 248 cases of endometritis complicated by peri-uterine inflammations divided into :

Clinic : 313 fibromas; 70 simple endometritis; 163 cases of endometritis complicated by peri-uterine inflammations.

Private : 218 fibromas; 63 simple endometritis; 85 complicated endometritis.

He has had three deaths, which may be attributed to operative failure (two galvanic punctures, one for a sub-peritoneal fibroid, the other for an ovaro salpingitis; one galvanic caustic for a cyst of the ovary mistaken for a fibroma).

He has observed thirty cases of pregnancy following after intra uterine galvanic applications.

ITALIAN TRANSLATIONS.

By William F. Hutchinson, M.D.

From Il Giornale dell' Exercito e della Marina.

Dr. Robert Messalongo states that all symptoms produced by gastric derangement, such as vertigo, tinnitus aurium, headache, general weakness, etc., do not depend upon structural change in the stomach, but are the expression of an auto-infection of the blood by toxenes developed by chemical decomposition of the ingesta in abnormal conditions. The author of this statement has experimentally demonstrated these toxenes in dyspepsia, and found that their inoculation gave rise to pathological manifestations identical with those of that disease.

Dyspepsia, therefore, is nothing but an auto-infection of the system kept up by altered innervations of the stomach. During and after digestion in normal conditions, there is always some slight production of these toxenes, but they are destroyed during their passage through different organs in their course.

He concludes that the most rational treatment for this disease will be, in acute cases, to relieve the stomach of these agents by emetics, at the same time neutralizing their strength by antiseptics. To restore innervation to its normal condition, tonics should be given.

Euphorine: A New Antipyretic.—The class of synthetic remedies for reducing febrile temperatures has been increased by the introduction of the compound named above. It occurs as a white crystalline powder with a faint aromatic smell and slight taste, recalling that of cloves. It is soluble in alcohol or in mixtures of alcohol and water, and hence its administration in mixtures, or even merely dissolved in wines, is facilitated. A number of physiological experiments were made which proved (1) that it does not produce any changes in the blood; (2) that it is non-irritant; (3) that in healthy persons it seems (in doses up to three grains) to be inert; (4) that no phenol, aniline, albumen and sugar are excreted in the urine of the animal taking it. It will be convenient to give the dosage before speaking of the therapeutics: As an antipyretic for patients under fifteen, eight grains are given in two doses with an interval of half an hour; for adults, fifteen to twenty-four grains daily. As an anti rheumatic twenty to thirty grains daily are required, and the analgesic effect is produced by doses of fifteen to thirty grains daily. Euphorine proves useful in various acute and chronic febrile disorders. On the average the effect was produced in one half to one hour, culminated in three hours (or rarely six), and lasted from five to seven hours. As the temperature went up again rigors were observed and profuse perspiration; during the apyrexia patients felt quite comfortable. Cyanosis and collapse were rare and transient. The effect of the remedy was marked in acute febrile rheumatic conditions; fever and pain disappeared, the affected parts became less sensitive to pressure, and the power of movement was increased. Over chronic rheumatism it appears to have less influence. What seems to be a very promising property of the compound is its antiseptic power; it was tried upon ulcers of long standing, and chronic cases of ophthalmia; in these, ulceration was promptly arrested and healthy granulation set up. Euphorine has been successfully given by Professor Giacosa, of Turin, and also by Dr. Sansoni, both of whom studied its therapeutic action in a number of cases.—*Hospital Gazette.*

Medical News and Miscellany.

At the Presbyterian Hospital, Chicago, Nov. 7, a child died from the effects of chloroform while undergoing an operation for the removal of a small mole from the cheek.

Dr. W. J. Hearn has been appointed Lecturer of Clinical Surgery at Jefferson Medical College. He is at present one of the visiting surgeons to the Jefferson and Philadelphia Hospitals.

Dr. J. C. McPherson, of Lyons, N. Y., while on a visit to Chicago, was knocked down by footpads and seriously injured. The thieves were frightened away before securing the doctor's valuables.

Prof. John J. Reese spoke on What Constitutes Reliable Evidence in Criminal Poisoning," before the Medical Jurisprudence Society at the hall of the College of Physicians, Thirteenth and Locust streets, Philadelphia.

Children's Aid Society.—During the month of October the Children's Aid Society, 127 South Twelfth street, found situations for forty-seven mothers at service, every mother taking one child with her. There were also eighteen children placed in private families to board, and nine were placed in private families on trial.

SOME very strange accidents are brought to light by the accident insurance business. For instance, a man at Zaliska, Ohio, a stationary engineer, was kicked very severely by a hog. It disabled him for quite a number of weeks, and he was paid $97. Another case was that of a man at Chillicothe, Ohio. As he was stooping to pick up some kindling wood a game rooster gaffed him in the wrist, cutting an artery, which disabled him for some time.

THE theatres threaten to prosecute claims for damages against the city, for interference with their business. Sore throats, alleged to be due to Mr. Wagner's newly improved gas, have almost broken up the companies at some of the principal theatres. It is rumored that the throat specialists contemplate a petition to the Director, asking him to continue the present method of manufacture. The sale of lamps during the past month has been enormous.

PATENTS, ETC., on medical subjects issued November 4, 1890:—

Obtaining cream of tartar	A. Martignier	Montpelier, France.
Inhaler	Warren & Dow	Wooster, O.
Making lactose or milk-sugar	Bennett & Boynton	Burlington, Vt.
Cough remedy	C. Jensen	Chicago, Ill.
Soda water dispensing apparatus	C. Adami	Boston, Mass.
Spray bath	G. Taylor	Jersey City, N. J.
Surgical-needle holder	C. H. Truax	Chicago, Ill.
Truss	M. Wise	Athens, O.

LABELS.

"Clevenger's Indian Hair Balsam"	Clevenger Hair Balsam Co.	Minneapolis, Minn.
"Howe's Diphtheria and Sore Throat Cure"	F. C. Howe	Sterling, Neb.
"Dr. Swan's Lung and Cough Balsam"	W. A. Oxnard	Holbrook, Mass.
"Sloan's Improved Green Ointment"	E. S. Sloan	Malden and Boston, Mass.
"Woman's Relief, the Great Panacea for Diseases of Women	A. F. Stephens	St. Joseph, Mo.

CHARLES J. GOOCH, *Patent Attorney.*

LOCK BOX 76, WASHINGTON, D. C.

WEEKLY Report of Interments in Philadelphia, November 1 to 8, 1890:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess of liver	1		Inflammation brain		2
" neck		1	" bronchi	4	5
" throat	1		" kidneys	9	
Asthma	1		" laryux		2
Apoplexy	9		" lungs	23	8
Alcoholism	4		" heart		1
Bright's disease	12	1	" peritoneum	1	
Burns and scalds		5	" pleura	1	
Cancer	10		" s. & bowels	3	3
Casualties	15	2	" blood vessels	1	
Congestion of the brain	1	1	Inanition		11
" " lungs	2	4	Insanity	1	
" " liver	1		Leucocythemia	2	
Child birth	1		Locomotor ataxia	1	
Cholera infantum		1	Malformation		1
Consumption of the lungs	33	5	Marasmus		8
Convulsions		13	Neuralgia of the heart	1	
Croup		7	Old age	8	
Cyanosis		5	Obstruction of the bowels	1	
Debility	2	7	Paralysis	10	1
Diabetes	2		Poisoning, lead	1	
Diarrhœa		1	Pyemia		1
Diphtheria		23	Rheumatism		1
Disease of the heart	15	2	Sclerosis of spine	1	
" " liver	1		Septicæmia	3	1
" " spine		1	Stone in bladder	1	
Drowned	1		Suffocation		1
Enlargement of the heart	1		Suicide, cutting throat	1	
Fatty degen. of the heart	3		" shooting	1	
Fever, malarial	1		Syphilis	1	
" scarlet		6	Teething		3
" typhoid	6	2	Tumor	3	1
Fracture of skull	1		Uræmia	2	
Hemorrhage from lungs	2		Whooping-cough		3
Homicide	1	1	Total	207	141

THE BRAIN AND SPINAL CORD.

They may talk of the brain and point with pride,
To its arching dome and its basis wide;
To its cortical cells and its ganglia deep,
And the treasures of thought its chambers keep,
To the wonders which eye and ear enthrall,
But the spinal cord surpasses them all.

For the eye will close, and the brain will tire,
And our thought in its very source expire;
While the lordly brow with lowered crest,
Seeks the downy pillow in needed rest;
But the sentinel cord its vigil keeps,
For "the spinal system never sleeps."

The brain may suffice for our waking hours,
When the mind controls its wayward powers.
'Tis by it we laugh and by it we weep;
It leaves us to die when it goes to sleep,
But the tireless cord with a ceaseless play
Is wakeful and active both night and day.

When the powers of life seem about to yield,
The brain is the first to resign the field;
But the spinal cord holds out to the last,
And it often conquers when hope is past,
Survives the weak maunderings of the brain,
And ushers us back to the world again.

Then here is a toast I would have you hail,
The spinal cord from the bulb to the tail.
You surely must honor the famous spot
Where Flourens located "the vital knot."
The cord! the cord! with its mysteries deep,
Which the pyramids guard and the ganglia keep,
The first to grow and the last to fail,
The spinal cord from the bulb to the tail.

—*Canada Lancet.*

TO CONTRIBUTORS AND CORRSEPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy and Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from October 24, 1890, to November 1, 1890.

Leave of absence for one month, with permission to apply for an extension of fifteen days, to take effect upon the arrival of Acting Assistant-Surgeon, A. P. Frick at Fort Navey, is granted Surgeon Stevens G. Conway, U. S. Army. Par. 2, S. O. 112, Dept. of Arizona, Los Angeles, Cal., October 24, 1890.

By direction of the Secretary of War, the leave of absence granted Captain Charles B. Ewing, Assistant-Surgeon, in S. O. 131, September 22, 1890, Dept. of the Missouri, is extended fourteen days. S. O. 250, A. G. O., October 25, 1890.

Headquarters Department of the Platte, Omaha, Nebraska, October 27, 1890. Leave of absence for one month, on surgeon's certificate of disability, is granted Captain Guy L. Edie, Assistant-Surgeon, U. S. Army, Fort Douglas, Utah. S. O. 80.

Leave of absence for one month to take effect about the 31st instant, is granted First Lieutenant J. D. Glennan, Assistant-Surgeon. Par. 1, S. O. 146, Dept. Mo., October 23, 1890.

By direction of the Secretary of War, the following changes in the stations of officers of the Medical Department are ordered:

First Lieutenant Charles E. Woodruff, Assistant-Surgeon, is relieved from duty at Fort Gibson, California, and will report in person to the commanding officer, Fort Missoula, Montana, for duty at that post, relieving Major Calvin DeWitt, Surgeon.

Major DeWitt, upon being so relieved, will report in person to the commanding officer, Fort Hancock, Texas, for duty at that post. Par. 6, S. O. 249, A. G. O., Washington, D. C., October 24, 1890.

First Lieutenant Philip G. Wales, Assistant-Surgeon, is relieved from station and further duty at Fort Huachuca, Arizona Territory, and assigned to duty at San Carlos, Arizona Territory, where he is now temporarily serving. Par. 13, S. O. 254, A. G. O., October 30, 1890.

So much of paragraph 2, S. O. 208, A. G. O., September 5, 1890, as directs First Lieutenant Nathan S. Jarvis, Assistant-Surgeon, to report for duty at San Carlos, Arizona Territory, is revoked. On the expiration of his present sick leave of absence, Lieutenant Jarvis will report in person to the commanding officer, Fort Bayard, New Mexico, for duty at that station. Par. 13, S. O. 254, A. G. O, October 30, 1890.

Captain William J. Wakeman, Assistant-Surgeon, is relieved from duty at Fort Bidwell, California, to take effect on the final discontinuance of that post, and will then report in person to the commanding officer, Fort Huachuca, Arizona Territory, for duty at that station. Par. 12, S. O. 254, A. G. O., October 30, 1890.

Captain William H. Arthur, Assistant-Surgeon, is relieved from duty at Fort Bayard, New Mexico, and will report in person to the commanding officer, Fort Grant, Arizona Territory, for duty at that Fort, relieving First Lieutenant William B. Banister, Assistant-Surgeon. Lieutenant Banister, on being relieved by Captain Arthur, will repair to this city, and report for duty to the commanding officer, Washington Barricks, District of Columbia. Par. 12, S. O. 254, A. G. O., Washington, D. C., October 30, 1890.

Changes in the Medical Corps of the U. S. Navy for the week ending November 1, 1890.

STEPHENSON, F. B., Surgeon. Detached from Receiving ship "Wabash," and wait orders.

MARTIN, H. M., Surgeon. Ordered to the Receiving ship "Wabash."

STONE, LEWIS H., Assistant-Surgeon. Ordered to the U. S. S. "Pinta."

ARNOLD, WILLIAM F., Assistant-Surgeon. Detached from the U. S. S. "Pinta," and granted two months' leave.

OWENS, THOMAS, Surgeon. Detached from the Coast Survey steamer "Blake," and wait orders.

BLACKWOOD, N. J., Assistant-Surgeon. Ordered to the Receiving ship "Vermont."

BOGERT, E. S., Assistant-Surgeon. Detached from the U. S. Receiving ship "Vermont," and to the Coast Survey steamer "Blake."

MOORE, A. M., Surgeon. Detached from the U. S. S. "Kearsage," and to the Naval Hospital, Mare Island, Cal.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service from October 6, 1890, to October 25, 1890.

HUTTON, W. H. H., Surgeon. Detailed as chairman, Board of Examiners; ordered to Washington, D. C., for temporary duty, October 14, 1890.

WYMAN, WALTER, Surgeon. To inspect quarantine stations, October 14, 1890.

LONG, W. H., Surgeon. Detailed as chairman, Board of Examiners, October 14, 1890.

SAWTELLE, H. W., Surgeon. Granted leave of absence for five days, October 13, 1890.

GASSAWAY, J. M., Surgeon. Granted leave of absence for thirty days, October 11, 1890.

IRWIN, FAIRFAX, Surgeon. Detailed as recorder, Board of Examiners, October 14, 1890.

AMES, R. P M., Passed Assistant-Surgeon. Granted leave of absence for thirty days, October 14, 1890.

WHITE, J. H., Passed Assistant-Surgeon. Granted leave of absence for thirty days, October 24, 1890.

PETTUS, W. J., Passed Assistant-Surgeon. To proceed to Vineyard Haven, Mass., for temporary duty, October 9, 1890.

PERRY, T. B, Assistant-Surgeon. Ordered to examination for promotion, October 9, 1890.

KINYOUN, J. J., Assistant-Surgeon. Ordered to examination for promotion, October 10, 1890.

CONDICT, A. W., Assistant-Surgeon. To proceed to Baltimore, Md., for temporary duty, October 18, 1890.

RESIGNATION:

AMES, R. P. M., Passed Assistant-Surgeon. Resignation accepted by the President, to take effect November 15, 1890, October 14, 1890.

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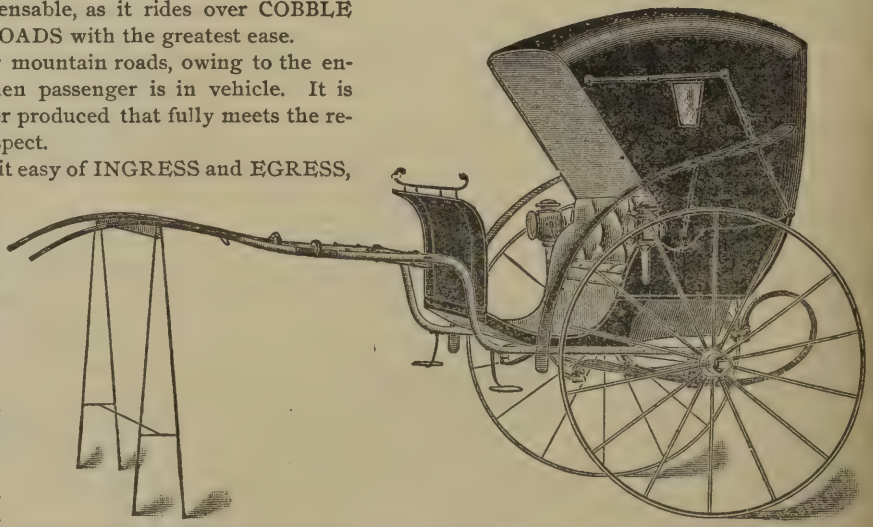

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PAGE

ORIGINAL ARTICLES.

THE TREATMENT OF FIBROID TUMORS OF THE UTERUS. By George H. Rohé, M.D , 475
SHOULD HYPNOTISM HAVE A RECOGNIZED PLACE IN ORDINARY THERAPEUTICS? By Norman Kerr, M.D., F.L.S. - - - - 478

SOCIETY NOTES.

NEW YORK ACADEMY OF MEDICINE - - - 482
Non union of Fractured Radius. *Powers*, 482
Hip joint Disease After Typhoid Fever. *Woodbury* - - - - - - - - - - 482
A Case of Osteo-malacia. *Woodbury* - - 482
Ankle joint Disease. *Judson* - - - - - 482
The Treatment of Ankle-joint and Tarsal Disease. *Myers* - - - - - - - - - 483

THE POLYCLINIC.

UNIVERSITY OF PENNSYLVANIA:
For Metrorrhagia. *Taylor* - - - - - - 484
For Hydrothorax. *Pepper* - - - - - - 484
For Acute Tonsillitis - - - - - - - - 484
For Spasmodic Stricture of Œsophagus - 484
For Acute Gastritis. *Pepper* - - - - - 484
For Atonic Dyspepsia - - - - - - - - 484

EDITORIALS.

THE NEW CONSUMPTION-CURE - - - - - 485
THE CHRISTIAN SCIENCE INSTITUTE, OF PHILADELPHIA - - - - - - - - - - - 486

ANNOTATIONS.

Dr. R. J. Levis - - - - - - - - - - - 487

LETTERS TO THE EDITOR.

Inspection of Lunacy Cases. *J. A. W.* - - 487
A Specific for Rhus and Ivy Poisoning. *Straley* - - - - - - - - - - - - - 487
Removal of Parotid Gland. *Ridenour* - - 487

PAMPHLETS - - - - - - - - - - - 487

THE MEDICAL DIGEST.

Sulphonal in Diabetes. *Casarelli* - - - - 487
Manganese. *Provincial Med. Jour.* - - - 488
Treatment of Erysipelas. *Ulrich* - - - - 488
Cerebro spinal Meningitis after a Blow on the Head. *Saltzman and Homén* - - - - 488
Exact Dosage in the Cataphoretic Use of Drugs. *Peterson* - - - - - - - - - - 488
Hodgkin's Disease. *Macdonnell* - - - - 488
Panicum as a Food Article. *Lipskey* - - - 489
Erythromelalgia. *Wendel* - - - - - - - 489
Excision of the Gasserian Ganglion. *Rose*, 490
Tubercular Peritonitis and Double Pleurisy Resulting in Recovery. *Finlay* - - - - 490
After treatment of Abdominal Sections. *Goodell* - - - - - - - - - - - - - 490
Guaiacum as a Purgative. *Murrell* - - - 491
Beri beri in the Provincetown Grand Bank Fishing Fleet. *Birge* - - - - - - - - 492
Effect of Drugs on the Pulmonary Circulation. *Andrew* - - - - - - - - - - 492
Orexin, *Penzoldt* - - - - - - - - - - 493
MEDICAL NEWS AND MISCELLANY. 493
ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - 494
NOTES AND ITEMS - - - - - - - iv, xii

Original Articles.

THE TREATMENT OF FIBROID TUMORS OF THE UTERUS.[1]

BY GEORGE H. ROHÉ, M.D.,

Professor of Obstetrics and Hygiene in the College of Physicians and Surgeons, Baltimore; Gynecologist to St. Joseph's Hospital.

THE object of this paper is to advocate a rational discrimination in the treatment of fibroid tumors of the uterus.

Uterine fibroids differ greatly in size, situation, structure and character of the symptoms to which they give rise. The treatment demanded by these differences likewise varies.

In structure, fibroid tumors are homologous with the tissue of the organ in which they are found. They are composed of muscular and fibrous tissue in varying proportions, usually encapsulated by a connective-tissue capsule, in which large vessels ramify. In some cases, the growth is made up principally of muscular tissue, in others almost exclusively of white fibrous tissue. In the majority of cases, however, the growths are composed of varying proportions of these two tissues, sometimes the muscular, at another the fibrous predominating.

Most fibroid tumors, especially if of moderate size, are firm and solid, but the larger growths frequently have cysts or cavities filled with a lymphoid fluid. These fibro-cystic tumors often cause no little difficulty in diagnosis, being sometimes mistaken for ovarian cysts, at others confounded with pregnancy. It must not be forgotten that pregnancy and fibroid tumors may co-exist, although happily this combination is not very frequent.

Fibroid growths may occupy any portion of the uterus. Their site of predilection appears to be the fundus and posterior wall of the corpus uteri. Schroeder found 92 per cent. in the body of the uterus, and only 8 per cent. in the cervix.

With reference to their situation in the uterine walls, fibroids are usually classified into sub-mucous, sub-serous and interstitial.

The sub-mucous project into the uterine cavity, the sub-serous toward the cavity of the abdomen, and the interstitial occupy a more or less intermediate position between the inner and outer walls of the uterus. As a matter of fact, most large fibroid tumors begin as interstitial or intramural growths, and become sub-mucous or sub-serous in consequence of the contractions they excite in the muscular walls, which force them either inward or outward.

Fibroid tumors may undergo fatty degeneration and be absorbed; they may slough and be cast off through the genital canal; they may undergo calcareous change and become encysted, and be thus carried through life; or may slough out in the form of concretions which have received the name of uterine stones. Finally, they may undergo sarcomatous degeneration and become malignant. All of these terminations are, however, exceptional. Generally the tumor continues growing until, or after, the menopause, and gives rise to symptoms more or less troublesome, and in many cases sufficiently serious to demand active measures of relief.

The most pronounced symptoms of fibroid tumors of the uterus are pain, hemorrhage and interference with the functions of other organs by pressure. They may also produce great discomfort by their weight. Occasionally the sub-mucous variety undergo sloughing, when they may cause the death of the patient by septicæmia.

The pain produced by uterine fibroids is sometimes so severe as to be alone a sufficient reason for medical or surgical interference. It usually manifests itself at the menstrual periods as dysmenorrhœa, but may be constantly present as severe backache, bearing-

[1] Read before the Medical and Chirurgical Faculty of Maryland, November 12, 1890.

down simulating labor pains, especially in the sub-mucous variety, or neuralgia of the sciatic nerves. Sometimes there is persistent pain in the uterus itself, or more probably in its peritoneal covering, which is subjected to irritation or inflammation.

Comparatively small fibroids situated low down in the uterine walls, or in the cervix, may cause severe irritation of the bladder by pressure. There is often vesical tenesmus with frequent micturition, causing the most intense suffering.

The pressure upon the rectum may also give rise to constipation and great pain on going to stool. Hemorrhoids and œdema of the lower extremities are not infrequent complications due to interference with the venous circulation. During the menstrual periods these pressure symptoms are generally increased in severity. Intra-pelvic or intra-abdominal pressure may also cause ascites, and in some cases localized peritonitic processes.

Hemorrhage is in most cases the symptom that urgently demands remedy. It is most frequent and gravest in the sub-mucous tumors, but may be an accompaniment of any variety. It may be alarming in cases where the tumors are so small as to be detected with difficulty on bimanual palpation. The bleeding usually occurs at the menstrual periods which are prolonged and more profuse than normal. The menstrual interval may be normal in duration, but in many cases is shortened, so that the bleeding recurs in two or three weeks. The blood is frequently discharged in large clots. Indeed, the discharge of clots at the menstrual period is an absolute indication of something abnormal, and should always invite attention to the condition of the uterus. In a very large proportion of cases it will be found to be an outward sign of fibroid growths.

A definite relation exists between uterine fibroids and sterility. Whether the sterility is a cause or a consequence of the morbid growths is not positively determined. Statistical compilations show that about 75 per cent. of the women having fibroid tumors have never borne children. This may be regarded as fortunate, for in cases of labor complicated with uterine fibroids over half of the mothers and nearly two-thirds of the children die.

The treatment of fibroid tumors of the uterus is pre-eminently surgical. Even the administration of ergot and savine may be looked upon as a surgical method of treatment, for the effect striven after in the use of these remedies is the extrusion, or partial extrusion of the growths, whose removal is completed by surgical means. While the deaths directly due to the use of ergot are probably few, most writers discountenance the treatment for these reasons: The ergot treatment is tedious, painful, often ineffective, and even at times dangerous. When the tumor is forced into the uterine cavity, or through the cervix by the contractions induced by the medicine, the practitioner must be ready to interfere surgically, otherwise sloughing and sepsis are imminent.

The ideal operation for a fibromatous tumor is the removal of the tumor, leaving the uterus intact. Unfortunately, in many cases this result cannot be attained. Nevertheless, this should be striven for wherever possible. The marvelous success of Schroeder and Martin in enucleating fibroids, and thus preserving the uterus, should encourage us to an imitation of their work. The enucleation of fibroids, whether by the genital canal, or by laparotomy, is in the true line of conservative surgery.

When a sub-mucous tumor projects into the uterine cavity, or the vagina, its attachment is usually by a pedicle of greater or less thickness. When the pedicle is thin the tumor may be twisted off. The torsion seems to arrest all hemorrhage at the same time from the highly vascular mucous membrane covering the pedicle. When the latter is thick, attachment may be severed with scissors, ecraseur, or galvano-caustic wire. I prefer the latter method as less dangerous, cleaner, more rapid, and thoroughly aseptic.

When the tumor is attached by a sessile base, the mucous membrane and capsule over it may be split with a knife, after carefully dilating the cervix under aseptic precautions, and then enucleating the tumor from its base. To arrest hemorrhage a tampon of iodoform or creolin gauze may be packed against the bleeding surface. Great care is requisite, however, not to allow the tampon to remain too long, as the secretions may be backed up through the tubes, and cause salpingitis or other inflammatory disturbances in the pelvic cavity. I am sure I produced a pelvic peritonitis in one case by the improper use of a tampon to arrest hemorrhage after amputation of the cervix.[1]

Sloughing of a sub-mucous fibroid is not necessarily fatal, as careful disinfection of the genital canal, before and after the operation, will often avert sepsis.

Vaginal enucleation of sub-serous tumors of the cervix may sometimes be practised. The operation was first done by Czerny. An incision is made through the vaginal fornix, avoiding the large vessels on the sides of the cervix, and the tumor enucleated from the tissue of the cervix and the pelvic connective tissue.

Tumors of considerable size may be delivered by intra-uterine and vaginal enucleation. If the growth is too large to remove entire, it may be diminished in size by subdividing it with scissors, saws, specially devised for the purpose, or the galvano-caustic wire. The operation should always be completed at one sitting; for to allow part of the tumor to remain is an invitation to septic absorption. Judgment and experience are required, however, to decide when the growth has reached a size that does not permit its safe removal by way of the vagina.

The enucleation of fibroids through an incision in the abdominal wall—laparo-myomectomy—is indicated in certain cases where the tumor cannot be removed by the vagina. It is at once a graver operation than the latter, and accompanied by a considerable mortality. If the tumor is sub-serous, and attached by a thin pedicle, its removal after section of the abdominal walls is not difficult. The pedicle may be transfixed by a double ligature, and tied tightly, the tumor cut off above the ligature, the peritoneum stitched over the end of the stump, and the external wound closed. Unfortunately, the tissues of the pedicle often shrink after the tumor is removed, and hemorrhage may take place from the stump. To avert this accident various measures have been adopted by different operators. Some remove a wedge-shaped plug from the face of the stump, and sew the opposing rough surfaces firmly together by deep and shallow sutures, lastly bringing the peritoneum together over all. This is usually efficient, but consumes valuable time. Other operators clamp the stump in a wire snare (Koeberle's serre-nœud), or a constrictor

[1] In reference to this point, Sir Spencer Wells says: "I have occasionally put on one or two pairs of pressure-forceps to a pedicle, either before cutting away the polypus, or when bleeding occurred after cutting away, and have left the forceps hanging out of the vagina for several hours; and I prefer this method to the more common one of applying perchloride of iron, and plugging the vagina."

of parallel steel bars (Keith's clamp), and bring it outside of the abdominal wound, where the constricted portion of the stump mummifies or sloughs off. The peritoneal covering of the sides of the stump is stitched to the parietal peritoneum, and so closes the peritoneal cavity against any discharges from the end of the stump. This method gives better results than the intra peritoneal method, but leaves much to be desired in the way of surgical neatness and rapidity of healing. It is also at times attended by other inconveniences and dangers, especially if the pedicle and uterus are much put upon the stretch.

When the growth of the tumor is sessile and directly under the peritoneum, or covered by a very thin layer of uterine tissue, it may be enucleated by making a bold incision over the tumor, and shelling it out of its base.

To guard against excessive bleeding an elastic ligature—a piece of rubber tubing—may be tied around the cervix, including within the ligatures the arteries supplying the uterus and appendages. Even large growths may be removed in this way. If the cavity left in the uterine tissue is too large to get good coaptation between its walls, it may be packed with iodoform gauze, as practised by Fritsch, and the edges stitched to the abdominal incision, in order to secure free drainage and make the cavity accessible to external treatment.

Deep intra-mural, or even sub-mucous tumors may be treated by this method, but the results are less and less favorable the more the uterine cavity is opened.

Sometimes the uterine walls are so occupied by the new growths that their total removal can only be accomplished by the excision of the entire uterus, or at least that portion above the cervix. This operation is one of the gravest in surgery, and gives, in the hands of nearly all operators, a high mortality. The total extirpation of the uterus, including the cervix, by way of abdominal section, has not been very often done, but with present methods should give more favorable results than supra-vaginal hysterectomy.

In the latter operation the stump very often gives trouble either from hemorrhage or sepsis.

Complete removal of the uterus at the vaginal junction, approaches the conditions of vaginal hysterectomy, and should give very little higher mortality than the latter. However, at best, the complete or partial extirpation of the uterus is an operation of great gravity, and should only be resorted to when all other means promising success have been tried.[1]

Tait has called especial attention to the soft œdematous myo-fibroma, which often gives the impression, on examination, of containing cysts. This tumor frequently fluctuates in size, being now larger, now smaller, without any apparent cause. These, as well as fibro-cystic growths of the uterus, are particularly suitable for complete extirpation by abdominal section. No other operation or method of treatment seems to control their growth or arrest the hemorrhage which is a frequent accompaniment.

In 1872, Lawson Tait, of Birmingham, and Alfred Hegar, of Freiburg, almost simultaneously devised the operation of removal of the uterine appendages —ovaries and Fallopian tubes—with the view of artificially inducing the menopause and thus arresting the growth of fibroid tumors by cutting off the principal source of blood-supply to the growth. This operation has now probably been done over one thousand times with very satisfactory results. Tait's own results, as shown in a statement recently furnished by him,[1] are extremely favorable. In 426 cases, 16 died, a mortality of 3.75 per cent. Tait also declares that 95 per cent. of the cases of fibroid operated by removal of the uterine appendages are cured, that is to say, the bleeding is arrested and a large proportion of the tumors diminished in size, some disappearing altogether. These effects have been established by many observers, especially when the cases have been properly selected. As above pointed out, in the soft œdematous growths the arrest of the bleeding does not seem to follow so regularly as in the hard, nodular fibroids.

The cause of the arrest of the hemorrhages, after renewal of the appendages, is probably due, as suggested by Mr. Knowsley Thornton,[2] to cutting off the blood supply by ligature of the large vessels in the broad ligament, and not merely to removal of the ovaries and Fallopian tubes. As a matter of fact the mere extirpation of the ovaries alone often fails in producing the expected result.

The high mortality of the abdominal hystero-myomectomy, and the opposition on many sides to the removal of the ovaries, which it was claimed by many, unsexed the woman,[3] led Dr. George Apostoli, of Paris, about 1882, to experiment with the galvanic current in the treatment of uterine fibroids. It is true, Cutter, Kimball, and perhaps others, had used galvanism successfully for this purpose before, but Apostoli developed a method by which the application of electricity is reduced to scientific exactness. The improvements in the instruments for generating, measuring and applying electricity now permit the physician to administer this remedy, with as much exactness in dosing as any other therapeutic agent at his command. It would take too much time here to describe the apparatus or the methods in use. For a full description I refer to pages 327-350 of "Practical Electricity in Medicine and Surgery," by Liebig and Rohé, and to Dr. G. Betton Massey's excellent little book on "Electricity in Diseases of Women," both published by F. A. Davis, Philadelphia.

In 1887, Dr. Apostoli reported 278 cases treated by this method with a successful result (arrest of hemorrhage, diminution in size, disappearance of pain and pressure symptoms) in 95 per cent. The average number of applications was fifteen in each case. In August, 1889, Dr. Thomas Keith and his son, Dr. Skene Keith, published a detailed record,[4] without commentary, of 106 cases treated according to the method of Apostoli. The average number of applications in the cases treated to a termination was twenty-eight. Three of the cases died during or shortly after the discontinuance of the treatment, but in neither case was the fatal result attributable to the applications. Admitting, however, for the sake of argument, that the electricity was the cause of death, a mortality as low as 3 per cent. cannot yet be claimed by any operator in hysterectomy, and even in the comparatively safe operation of removal of the appendages, very few operators can show as favorable results, as Keith has obtained with electricity.

[1] Several American surgeons have done complete extirpation of the uterus successfully, and A. Martin reports eleven recoveries out of sixteen operations, a pretty high mortality.

Fritsch's mortality in all cases of hystero-myomectomy, including enucleations is 25 per cent. Bantock's 22 per cent.

[1] Mac Naughton Jones: Diseases of Women; Fourth Edition, p 340.

[2] American Gynecological Transaction, 1882.

[3] This objection is not tenable, as the "unsexing" consists merely in anticipating the menopause, which is one of the natural characteristics of the human female.

[4] The Treatment of Uterine Tumors by Electricity, Edinburg, 1890.

I have carefully gone over the record of the cases reported by Keith, and have been surprised at the almost uniform improvement noted. Diminution in size of the tumor, arrest of hemorrhage, relief of pain, and general improvement in the nutrition and spirit of the patient are recorded in nearly every case.

August Martin, the greatest living gynecological surgeon of Germany, has very recently[1] referred to 10 cases treated by him in the following words: "The results in these 10 cases show that hemorrhage, the most troublesome and dangerous symptom of myomata, may usually, indeed, be controlled; in fact, in those large multiple tumors, which apparently were situated intra-murally, and included the fundus, hemorrhage ceased nearly entirely. Several small tumors were not influenced in the same manner, and the hemorrhages continued unchanged in spite of very frequent sittings, so that here the result must be regarded as a very doubtful one. One patient, who had a myoma of the size of an ostrich egg, had such violent pains after seven sittings, that she insisted upon being operated. The operation was performed, and the patient recovered. A second symptom, often so frequently complained of, is the phenomena of pressure. These disappeared in all of 9 cases, so that in this respect the result is very satisfactory. An essential decrease in size has, up to now, not been obtained in any case."

This is not very enthusiastic, but Dr. Martin admits that the symptoms for the relief of which hysterectomy is at all justifiable, were relieved in his cases. He states that he shall continue "making experiments with the procedure."

Numerous other competent observers in France, Germany, England, and in this country, have had successful experience with this method, and although there is still a good deal of sneering at the method as being useless, and withal dangerous, and those who use and advocate it are denounced as quacks and "low down, no-account sort o' pussons" generally, electricity in the treatment of fibroid tumors of the uterus has come to stay, and demands investigation. Ridicule and denunciation are no answers to plain records of facts submitted by Apostoli, Zweifel, Martin, Keith, and many others, less eminent, perhaps, but still of some account in the world.

Some of those who use the electrolytic method, apply it in office or dispensary practice, allowing the patients to walk or ride considerable distances after the application. This I regard as imprudent, and likely to cause trouble. All the cases in which serious symptoms, or a fatal result followed after the use of electricity were such as had imprudently exposed themselves. I regard it as important that several hours at least of perfect rest should follow each application. To allow this course to be pursued it is requisite that the patient should be treated at her own home, or in a properly fitted institution.

It goes without saying that careful asepsis of the genital canal should be maintained during the electrical treatment, as well as in the gravest and most delicate surgical operations.

Laparo-hysterectomy puts the woman in jeopardy of her life, and keeps her a helpless invalid for at least one month. The electrolytic treatment keeps the patient under moderate restraint for a period of two or three months, does not endanger her life, and leaves her generally in such a condition of comfort and health that she is satisfied to live her allotted days, even though she is obliged to carry her tumor with her to the grave.

I would not advocate the exclusive use of electrical method in the treatment of uterine fibroids. As stated in the beginning of this paper a rational discrimination is demanded of those who treat this condition. Many cases are readily relieved by vaginal or intra-uterine division of the pedicle by scissors, ecraseur, or galvano cautery wire; others are best treated by vaginal, intra-uterine, or abdominal enucleation. Large œdematous tumors or fibro cysts should be treated by laparo-hysterectomy; bleeding fibroids of not too great size, are proper cases for removal of the appendages, and most large chronic, immovable tumors, choking up the pelvis, causing pain, pressure-symptoms and hemorrhage yield to the proper, patient employment of the galvanic current after the method of Apostoli.

18 WEST FRANKLIN STREET.

[1] Introduction to American Translation of Martin on Diseases of Women. Boston, 1890. p. xxix.

SHOULD HYPNOTISM HAVE A RECOGNIZED PLACE IN ORDINARY THERAPEUTICS?

By NORMAN KERR, M.D., F.L.S.,

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AS I read, recently, in the columns of a medical journal, of a grave assemblage of medical practitioners giving utterance to feelings of astonishment at the painlessness of that generally agonizing process, the extraction of teeth, and other painful operations, at the reception of false beliefs and the display of eccentric contortions, while the persons operated on were unconscious of their vagaries, I could not help conjecturing that these, my learned professional brethren, were but rubbing their eyes while awakening from more than a quarter of a century of sleep as profound as that of the eleven thousand virgins of Cologne. Where had these Esculapian eyes been all these years?

Nearly thirty years have come and gone since, a fledgling in medicine, I witnessed even more mysterious performances than these hypnotic phenomena which have lately been over-awing medical and lay Rip van-Winkles. I might have alluded to the wonderful exhibitions of a like character in the days of Mesmer, fully one hundred years ago, and have gone a long way further back in the East for similar exhibitions; but at present it may be judicious to speak what I do know and testify what I have seen.

In my judgment, the hypnotic or mesmeric wave is a neurotic epidemic which we, who profess the art of healing, have to run the gauntlet of, like measles, sooner or later in our professional career. I had both badly in my medical infancy, and, having escaped troublesome sequelæ, have no longing for a second attack of either.

Let me clear the ground by at once accepting as genuine most of the phenomena which have recently been claimed for hypnotism (though some at times occur independently of induced hypnosis) by Liébault, Heidenhain, Van Eeden, Tuckey, and others. It is true that there have been trickery and collusion in some alleged mesmeric or hypnotic displays, but almost every kind of demonstration is liable to simulation and fraud. The deception which has been practised in mesmeric and hypnotic performances may be left out of account. I have no doubt of the genuineness of the hypnotic phenomena favored by some of our professional brothers.

Undoubtedly persons have been sent artificially to sleep, and, while in that hypnotic state, have borne without consciousness, manipulations which would have given them acute pain had they been in full possession of their senses. In that state such persons have been made to accept false beliefs as real, and to assume all manner of attitudes at the will of the operator. Undoubtedly, as at Madras by Eisdale forty years ago, major operations have been performed on natives without the infliction of a pang or the recollection, on awakening, of an ache. Undoubtedly pain has been relieved and some ailments have apparently been cured by hypnotic suggestion, as of late at Nancy, Paris, and Amsterdam, and formerly in our own country by Gregory and Braid. Undoubtedly, while in a state of artificially induced somnambulism suggestions can be impressed on the susceptible subject, which may last for a longer or shorter period, which within certain limits may be carried out at a given time suggested by the hypnotist.

Freely acknowledging all these facts (which, with additional phenomena, I have verified), it may be asked: "How do you account for them?" I candidly confess that I cannot, though plausible explanations have been attempted, such as the most recent, "disturbed inhibition." Closely as I have watched the phenomena of hypnosis I have been able hitherto to discern only a disordered cerebral state, an abnormal psychical condition characterized by exaltation of receptivity and energy. The neurotic susceptibility to hypnosis, like the religious epidemics of the middle ages, breaks out now and again, and for a limited period may by mental contagion possess a community.

Having thus conceded the claim put forth, on behalf of hypnotic suggestion, as in some instances effecting certain immediate apparently beneficial results in susceptible subjects, it remains to consider whether such a means of alleviating the suffering of some is desirable and justifiable in ordinary therapeutics.

In determining this question various considerations must be taken into account.

1. Only a limited number of patients can be hypnotised. This is specially true of the Anglo-Saxon race.

2. In many persons, after hypnosis, nerve equilibrium is apt to be disturbed, the nervous balance upset, and nerve energy dissipated. Such have an intense feeling of languor and exhaustion, indicative of profound neurasthenia. This neurasthenic collapse frequently repeated may lead to deterioration of brain and nerve function—a physical degradation as well as an intellectual decadence and a moral perversion. There are neurotics whose appetite (under hypnosis) for *outré* actions is insatiable, who, when hypnotised cannot get too many and too eccentric tasks to perform. In these cases this morbid desire increases at each *séance*. This is a kind of non-alcoholic inebriety, a form of teetotal intoxication, which presents grave aspects, not to be found in alcoholic or any other narcotic intoxication.

3. Hypnosis is not a healthy but an unhealthy condition, a disorder of nervous function, an abnormal state. When we meet with similar phenomena in hysterical subjects on whom no hypnotic influence or suggestion has been attempted by any one, we have no hesitation in recognizing and treating these trance and somnambulistic manifestations as symptoms of morbid nervous perversion. Why should we show such neurotic phenomena greater deference when they are artificially produced? Why should unintentional auto-hypnosis be deprecated as a symptom of disease calling for medical treatment, as when undesigned auto-hypnosis has been induced by rapt, absorbed, devotional gaze on some sacred image, and hypnosis, by intention and at the suggestion of another person, be cherished as a healthful help to recovery from disease?

4. Whatever the immediate effect of hypnotic suggestion, a true though temporary neurosis has been set up. Charcot, from his observations at the Salpêtrière, has noted three stages in hypnosis, the lethargic, the cataleptic, and the somnambulistic. Especially in the lethargic, and to a large extent in the cataleptic, the unconsciousness is apparently complete. In these two stages the patient does not move. For the moment his will is inoperative. In these stages he is rarely amenable to suggestion. In the third stage, that of somnambulism, he can read and hear, he can receive and carry out the suggestion of the operator who hypnotises him. When he wakes, he can remember nothing that happened during his hypnotic sleep, though he may automatically carry out the suggestions which had been made to him, which may recur to him at the next somnambulistic *séance*, unless an opposing suggestion has been impressed upon the brain. All these phenomena, as well as the somewhat loosely defined five hypnotic "degrees" of the Nancy School, constitute a chain of abnormal neurotic symptoms. A departure from health has been artificially induced. It does seem to me that while in the flesh we are liable enough (especially in these days when to the multiform and omnipresent bacteria and microbes a tremendous potentiality of disease generation is ascribed) to bodily and mental maladies without, like the artificial hatching of chickens by the incubator, rearing by art an innumerable progency of some of the most subtle ills to which flesh is heir—disorders of the brain and nervous system.

Thus, even if it can be demonstrated that a disease may be cured by hypnotism, this is accomplished only by a disadvantageous exchange of maladies, the substitution of a graver diseased state, a transformation, a metamorphosis which, however sensational and brilliant as a *coup de théâtre*, is not a truly curative process, and should have no support, unless in extraordinary circumstances, from such members of the medical profession as practice their calling with a single eye to the genuine healing of the sick. There are circumstances in which the production of a less serious disease is justifiable and useful, for example, in a resort to vaccination as a protection against the greatly more fatal disease of small-pox, and in the temporary cerebral disturbance of a narcotic (which has not the power of a hypnotist to modify its action) for purposes of permanent or greater evanescent benefit. To establish a case for hypnotism under these exceptional conditions it fails to be shown that the cerebral disorder produced thereby is less grave, in character and potentiality, than the original malady and other remedial measures.

5. Is disease really cured by hypnotism? Though I have seen pain relieved and distress alleviated in a few cases by mesmerism and hypnotism, I much doubt if disease is often cured thereby. Some physicians, in the height of their new-born amazed delight at agony assuaged as by a charm, have assumed that a cure has been effected. This is often a premature conclusion. It is generally easy to obtain a respite from pain. But that blissful interregnum is no proof of the cure of the disorder of organ or func-

tion from which the pain took its origin, and of which unhealthful disturbance it was a portentous and timely warning. A patient, consuming away with an agonizing ailment, breaking through the dietetic restraint under which his life was being prolonged, enjoys a complete, though evanescent respite from his sufferings during a paroxysm of intoxication. But the disease from which he is dying is not cured, rather aggravated.

Though the sensation of pain may be abolished for a time and a painless interval be secured, it does not follow that good remedial work has been done. Very often pain is but an emphatic message, like an urgent telegram, to call our attention to something radically wrong in our internal economy. If in such cases we deaden the pain we are only silencing the unwelcome though merciful and necessary messenger, by which pain-killing lulling us into false security, the disorder within may acquire increased lethal power. It is, however, in certain circumstances, legitimate to endeavor to obtain relief from pain, when its severity or persistence, apart from the pathological origin of the suffering, is unbearable, or perilous to reason or life.

The few cases I have seen derive apparent, if temporary benefit, would probably have done as well under ordinary treatment had they not either resisted that, or been passive, instead of giving themselves up as they did to the hypnotist. They had a wish for cure and strong faith in the process, the efficacy of which was heightened by the congenial and impressive surroundings. Under such favoring conditions there would be a fair crop of successes for "faith healing," the "mind cure," the "movement," the "blue electricity," or any other "cure." The greatest success which has been claimed for hypnotic suggestion has been in the alleged cure of nervous affections. My observations is that this is the very class of ailments which, though apparently improved for a time, is in the end confirmed and intensified. Of one group of diseases of this kind I can speak with some precision. It has been asserted, especially by some non-medical hypnotists, though also by a very few medical enthusiasts in hypnotism, that they have cured a larger proportion, than by any other means, of their cases of what they are pleased to call "dipsomania." An erroneous designation by the way; for, unless when suffering from "hot coppers" after a debauch, many inebriates are never thirsty. Such do not drink because they like the intoxicant. On the contrary they often hate it with a perfect hatred. "Tipsymania," as Punch christened it, is a more accurate term. Inebriety is truly an intoxication-mania, or, as I have ventured to call it, a torpor or Narcomania. Though hypnotism has been tried in inebriety by several medical experts, it has not been found useful as a remedy by a single American or English expert specialist of repute in the treatment of any form of that protean malady.[1] Of course there is a certain percentage of cures under hypnotic treatment, as indeed there is with no treatment at all, by sheer self-determination. Inebriates usually put themselves under the hypnotist and give themselves up to him. I have seen such cases cured without hypnosis and without residence in a Special Home. But, frequently, inebriates entering such a Home do so under pressure. Indeed, I have known inebriates made thoroughly drunk, and even drugged, and taken to a Home without their consent or knowledge. In these circumstances a thoughtful and experienced physician would see little hope of cure.

The last occasion on which I induced hypnosis was years ago on an inebriate, in an emergency to save my life; when my windpipe was steadily being compressed by a strong man in delirium tremens, who had me in an unguarded moment at his mercy in the corner of a steamship's cabin, powerless to cry out for help. Yet the suggestion, though effectual at the time, had little post-hypnotic permanence.

In the treatment of alcoholomania, morphinomania, etheromania, and other allied diseases, I must, however, acknowledge that, in addition to hygienic, pharmaceutical, and other therapeutic measures, I largely make use of suggestion. By this I mean healthy suggestion, not suggestion as employed by Bernheim to induce morbid eccentric manifestations.

Suggestion is employed by all physicians, consciously or unconsciously, if they have at heart the welfare of their patients, or even if they have any decided opinion. The stronger the faith of the patient in the physician the better is the hope of benefit. When the patient hangs upon the lips of the doctor, the latter's every direction or expression of opinion is practically a suggestion of the purest and most satisfactory character, impressed permanently upon an expectant and receptive brain. Such a suggestive process is as unobjectionable as it is remedial and scientific. There is neither pitfall for the suggester nor peril to the suggestee, for both are in the full possession of consciousness. Suggestion in hypnosis is, so to speak, a mechanical impression on a soulless unthinking mass, which suggestion may or may not have a post-hypnotic life. Non-hypnotic healthy suggestion is an interchange of intellectual thought, a reasoning appeal to an intelligent and sentient being. To sound suggestion must be ascribed the success and the reputation of our best alienists and physicians.

6. The dangers involved in the practice of hypnotism are very great. To succeed in obtaining an apparent cure, in many cases the *séances* have to be repeated for a more lengthened period than often suffices for the malady to run its course, when treated by orthodox medicine. At each sitting the subject comes more and more under the control of the operator, till a spiritless subservience to the operator's will may lay hold of the hypnotee, who in some cases degenerates into a mere automaton without any backbone, a jelly-fish mass without mind or will of his own. This is a state of mental serfdom which is infinitely worse than days of pain and nights of agony. There are such wrecked lives among us, the unhappy results of former well-intentioned medical and non-medical hypnotism. What chiefly opened my eyes to the perilous tendency of hypnotism, was the onset in some apparently highly benefited cases, in the practice of as honest a man as ever lived, of mental instability developing, in at least one case, into insanity.

7. One peculiarly grave occasional consequence of repeated hypnotic acts is that between the operator and the subject, a subtle affinity or *rapport* may develop, which may involve both subject and operator. This obscure affinity of affectivity may, by a process of involuntary non-hypnotic auto-suggestion, insensibly yet gradually grow upon the performer till

[1] To dissipate a misapprehension which I had not foreseen, it may be judicious to explain, that by specialist-experts, I mean medical men who have devoted themselves mainly to the scientific study and treatment of inebriety as a disease, and who have had large numbers of inebriates under their care.

he is in danger, though sorely against his will, and despite a strenuous struggle, of being unable to resist dangerous morbid impulses. In the person of both parties such an unhappy issue may co-exist with fervid emotional religion.

8. Hypnotic suggestion is liable to other grave abuses. The hypnotist may commit an offence upon the hypnotee during the lethargic and cataleptic states; and may by suggestion (even sometimes when not in the presence of the subject) force the hypnotee (in the somnambulistic state) to commit a criminal act, and at the same time refuse to disclose whether the suggestion had been made, and, if so, who was the author. Five cases of the first category are recorded by Gilles de la Tourette in his "L'Hypnotisme au Point de Vue Médico-Légal" (Paris, 2d ed., 1889), and cases of the second category have also been the subject of judicial procedure (Castellan, 1865, and other cases).

So liable to abuse has the practice of hypnotism proved in France that the French army and navy surgeons have been forbidden to practice it on their patients; and in Belgium it is proposed to enforce certain restrictions in civil practice.

9. Apart altogether from these grave abuses to which hypnotism is liable, the fact remains that some of the hypnotized come quite under the control of the hypnotist, mere puppets in his hands. This is a weighty objection to which no answer has been attempted. I can conceive no circumstances which can justify the placing of the control of a man's or woman's thoughts and actions in the keeping of a fallible fellow-mortal; no circumstances which can warrant the dependence of any one's sobriety or insobriety on the pleasure of another person.

The plea has been offered that no one can be hypnotised unless he choose. This is, generally speaking, true in the main, but (1) no small number of human beings are ever ready to be the prey of anything new or bizarre, and (2) repeated, persistent, cunningly devised attempts by a skilful and experienced hypnotiser may secure that degree of fixed attention, expectancy, and mind concentration, and break down the resisting power to that level, where further resistance is unavailing.

It has been contended that the possible abuse of this remedy is no objection to its deliberate use, as with chloroform. To this it is sufficient to reply that chloroform has only a restricted effect on body and brain, and is a material substance, the action of which is limited and known; whereas hypnotism places the trained subject at the mercy of another individual open to temptation and auto-suggestion to abuse his capacity to inflict untold mischief on the body and morals of the submissive subject.

It may be urged that the hypnotee may resist suggestion in the hypnotic state. This does occur in some cases, but is the exception. The restoration and re-assertion of long dormant inhibition is an arduous and difficult task, few having the courage and perseverance to succeed.

In view of all these possible abuses and dangers, it passes my comprehension how it could ever have been contended that family medical practitioners should practice hypnotism on patients of both sexes and all ages, as a part of their regular daily work. Surely the perverted actions of hysteric patients, and the existing chances of groundless and serious charges to which we are already exposed, are more than enough, without the addition of hysteria-cum-hypnosis complications. In such a prospect the question would appropriately arise: "Is medical life worth living?"

I cannot find language strong enough to express my abhorrence of the disgusting and degrading exhibitions to be seen in many public places of amusement, as well as in select circles of fashion, sometimes for mere amusement, sometimes in philanthropic guise, sometimes for pure gain honestly enough professed, at which men, women, and young people are made to perform ridiculous antics, and to unconsciously play the fool, to the detriment of their mental health and the depraving of the public taste. Such demoralizing performances have been suppressed in Holland and Switzerland, which countries have set an excellent example for Britain to follow. I have read, with a glow of shame on my cheek, that reputable physicians have patronized such entertainments, and by their testimony, in addition to their presence, have thrown the ægis of professional sanction over the saddening and regrettable proceedings. The performers, though culpable, have usually the excuse of striving for a livelihood, and in my opinion are not nearly so blameworthy as are their medical patrons.

If, notwithstanding the nervous and mental disorganization which it frequently induces, hypnotism continue to be considered lawful, the practice of it ought not to be allowed (except in an emergency) unless for strictly scientific purposes, as in the study of the psychology of the phenomena,[1] or therapeutically in very exceptional cases, by responsible medical men, in the presence of at least one other duly qualified colleague, with a third adult (such as a trained attendant or nurse) present, a record being kept of each *séance*, its object and its results. There should also be recorded as accurate an after-history of the cases as can be obtained.

With these precautions a minimum of risk would be run; but, with our present knowledge, as regards therapeusis, I candidly confess that I would infinitely rather see the medical profession set its face against the whole hypnotic process as a hazardous and unreliable remedy, never free from the risk of perilous sequelæ, involving serious medico-legal responsibility, liable to the gravest abuses, operative with only a limited number of persons, the general tendency of which is apt to be inimical to the best interests of patient and physician, to induce hysteric and allied morbid affections, to produce cerebral conditions conducive to mental unsoundness, and to transmit to posterity permanent pathological nervous susceptibilities, with an ill-balanced and unstable brain, more especially in these days of nerve riot, exhaustion, and unrest, when o'erwearied nature yearns with an unutterable yearning for even the briefest space of oblivion and repose.

"Hypnotism and hysteria are very near of kin." "Hypnotism is a genuine neurosis, not a physiological state."—Charcot, 1890.

NOTE.—Puységur published rules for treatment by hypnotic suggestion, with cases, one hundred and six years ago.

GEORGE KEIL has in preparation a medical and dental register-directory and intelligencer for the States of Pennsylvania, New Jersey and Delaware, to be ready early in 1891. He desires to have from every physician data as to his graduation, residence, office hours, etc. The publisher's address is 1715 Willington street, Philadelphia.

[1] I well know how intensely interesting such a study is, but it is so absorbing and fascinating that in the interest of both observer and observed, it is imperative to exercise constant vigilance and self-restraint for the preservation of sound mental health.

Society Notes.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON ORTHOPÆDIC SURGERY.

Stated Meeting October 17, 1890.

V. P. GIBNEY, M.D., Chairman.

NON-UNION OF FRACTURED RADIUS.

DR. C. A. POWERS exhibited a patient in whom this condition had existed for many years, and also showed an extension apparatus which had given relief. The first fracture occurred twenty-nine years ago at the junction of the middle and lower thirds. A refracture took place eighteen years later, and united with deformity and disability. The radial nerve had become involved in the callus, and this gave rise to such intense pain that she underwent an operation for its relief, five years later, in which the bone was again fractured. All attempts to cause this fracture to unite failed. When she came under the care of the speaker, in May of the present year, it was found that the carpus had slipped upward with the lower fragment of the radius, and had caused the ulna to project very forcibly against the soft parts, giving rise to much pain in the region supplied by the ulnar nerve. As further operative measures were not deemed advisable, a simple extension apparatus was applied, and had answered admirably.

DR. A. M. PHELPS said that he thought it had been wisely decided not to subject the patient to further operation, as fractures of the radius, and of the lower third of the tibia, were peculiarly prone to non-union. Out of about three hundred osteotomies, he had had only one case of non-union, and that was after an operation for the correction of an anterior tibial curve. Operations by himself and others had failed to bring about union. Thomas, of Liverpool, claimed that such fractures could be made to unite by pounding the parts with a mallet; but in his experience, this method had not proved successful, and he thought that where there was muscle between the ends of the bone, and the peculiar, ivory-like condition of the ends of the bone—which was not uncommonly present — none of the methods heretofore proposed were likely to prove successful. He had very recently proposed and performed a new operation, which he thought might prove successful. It consisted in cutting down upon the ununited fracture, freshening the ends of the bone, and grafting in between them a part of the forearm of a dog—both patient and dog being secured in plaster of Paris. When the graft had united firmly, the dog's leg would be amputated, and the skin flaps of the dog united to those of the patient.

HIP-JOINT DISEASE AFTER TYPHOID FEVER.

DR. J. MCG. WOODBURY presented a girl of eleven years, who, six months after a severe attack of typhoid fever, was found to have some limitation of motion and pain at the right hip, with distension of the capsule. Flexion caused lordosis, and some pain. She was treated by counter irritation over the joint, and a plaster of Paris spica bandage, and was allowed to walk around upon a high patten, with crutches. Now, after a period of eight months, there was no pain.

A CASE OF OSTEO-MALACIA.

Dr. Woodbury also presented a case of this nature. The patient had lived in Switzerland until twenty-six years of age, and had suffered considerably from exposure during the late war. On October 26, 1886, when forty-three years of age, he sustained a fracture of the surgical neck of the left humerus, and between that date and May 26, 1890, he received five other fractures—viz., two of the left humerus, two of the right humerus, and one of the left clavicle. Most of these fractures were caused by very slight falls. During the last three months—but more particularly since the first of last August—a tumor has been rapidly growing between the sites of the two fractures of the shaft of the right humerus. Two small tumors may be observed upon the clavicle—one at the point of the fracture, and the other to the inside of it. A specimen, removed from the large tumor with a harpoon, was sent to Dr. J. S. Ely for microscopical examination, and he reported that it contained "polyhedral cells, and occasional large spindle and giant cells." He adds that this "speaks very strongly for sarcoma." A loud murmur, similar to that heard in aortic aneurism, is audible over the large tumor. Dr. Woodbury said that as in cases of tumor of the middle of the spinal cord, osteo-malacia, due to trophic disturbances, is one of the early symptoms, concurrent with disturbances of sensation, he had referred the case to Dr. M. A. Starr, with the hope of learning more about the etiology of this interesting condition. Dr. Starr examined the patient on two or three occasions—the last time only a few days ago—and had reported that there was no central lesion of the cord. The patient had had no pain with the fractures, or upon resetting these bones, and this, together with the fact that there had been no fractures of the lower extremity, seemed to favor the view that the condition was due to a syringe myelia, or tumors of the cord.

DR. POWERS said that Dr. Woodbury's case of multiple fracture with tumors was very similar to a case of multiple sarcomata which he had recently presented to the Surgical Section.

DR. V. P. GIBNEY thought the pulsation in the tumor might be due to the condition of the tumor itself. In other words, it might be a pulsating sarcoma.

ANKLE-JOINT DISEASE.

DR. A. B. JUDSON presented a case of this disease which he said was interesting because the child had suffered from this condition almost all her life. The disease began at the age of one year, and she is now about seven years old. Notwithstanding that she had been under mechanical treatment only two years, she had recovered with but little disability and deformity. There was considerable lateral motion at the ankle-joint; extension was almost normal; flexion was arrested at about 90°. Scars on both sides of the ankle showed where abscesses had opened spontaneously. There was a difference of one inch between the two calves, and the shortening amounted to only a small fraction of an inch. This result had been obtained by the use of a simple brace, and without resorting to any operation.

DR. JOHN RIDLON presented an astragalus which had been removed by Dr. B. Farquhar Curtis from a child, which had been brought to the speaker when only six weeks old. He had faithfully tried stretching, and the various retentive appliances, during a period of one and a half years. Dr. G. S. Huntington had then operated by Dr. A. M. Phelps' open method, but without improving the condition. The specimen which he presented was interesting on account of two bony prominences which it showed, and which apparently had been the obstacle to flexion of the foot.

THE TREATMENT OF ANKLE-JOINT AND TARSAL DISEASE.

The paper of the evening, with the above title, was read by Dr. T. Halsted Myers, who also presented a patient illustrative of this subject.

Dr. Myers said that tubercular inflammation might attack first, the synovial membrane; later, the cartilage; and lastly, the bone; or, the primary local focus might be in the bone.

While it was still confined to the synovial membrane, a number of surgeons recommended erasion. If it had attacked the bone, many more urged operative methods, irrespective of the general health of the patient. The author considered only the latter condition.

Simple incision was of no advantage, for we had no element of tension, as in acute processess, and we only opened new channels of infection, leaving the original disease unchanged.

The usual method of treatment—curetting the abscess walls and the sinuses—could not be expected to remove all disease, and would greatly increase the risk of absorption. The success which had been secured in some of these cases seemed to be due to the power of the antiseptic agent to render inert the bacilli which remained.

The rational method was to remove all the disease at once; but apparently healthy bones contained tuberculous foci, and hence, it was a most difficult problem to know when to stop; and, in fact, this could not be determined at the time of operation. If all the disease were successfully removed, the duration of treatment was less than under conservative methods. The ultimate results were, however, less satisfactory. He had seen a considerable number of misshapen and atrophied feet after operative treatment, which were weak and painful, and required support to render them able to bear the weight of the body. He had not observed such results from conservative treatment. It was confessedly difficult to ascertain the ultimate results; and, although Dr. Shaffer had kindly placed the records of the New York Orthopædic Dispensary at his service, he had not been able, in the short time at his disposal, to do more, in most of the cases, than quote the histories.

The number of cases treated before July, 1888, was 55, and of these he knew personally that at least 21 were cured. Five were cases of synovitis, and 16 of osteitis. The average duration of treatment in the latter was twenty-one and a half months, the longest case being under treatment fifty-five months. The results in all were extremely good; yet, under careful private treatment, still better results should be expected.

From our knowledge of the various ways in which the bacilli of tuberculosis may be spread in the body, it would seem that a primary tubercular process in a joint must be extremely rare. Drs. Prudden, Northrup, Biggs, and Thacher, to whom he had written for information on this subject, all considered that these affections were generally secondary, but agreed that primary joint lesions did occur. The practical importance of this was that the danger of general infection from a joint lesion which was not interfered with surgically, was an entirely unknown, and probably extremely small, quantity.

Of the whole number treated (fifty-five), but three had died—one of diphtheria, one while tarsal disease was active, and the other, six months after a note of "nearly cured" had been recorded. In neither of the latter was the cause of death stated. However, in Dr. Scudder's report of eighteen cases of excision, six deaths occurred; three were due to the operation, or its direct effects; another might have been; and the other two were from tuberculosis, but occurred one, and two years after the operations.

The treatment of synovitis consisted in absolute protection of the joint from traumatism. In children, he considered a perineal crutch absolutely necessary while walking. Ordinary crutches were invariably laid aside at times, and the joint left unprotected. In addition to this crutch, the foot should be protected by a splint to avoid local injuries, and to maintain a good position. There being no involuntary muscular spasm, while the disease was confined to the synovial membrane, traction was not necessary.

In cases of osteitis, the same protection of the joint was imperative, and if there were pain and spasm, indicating the necessity for traction, this could be applied at the ankle, by means of a Dow's brace, or the apparatus of Dr. Sayre, or Dr. Foster.

The application of adhesive plaster to a painful ankle required more care than a dispensary case was willing to give, especially when abscess was present. For this reason, he had found it most serviceable to employ a leg brace, or plaster splint, worn constantly, and a perineal crutch for walking, which could be laid aside at night; or the Dow's brace as modified by Dr. Schaffer, might be used.

Abscesses should be left entirely alone, and the sinuses simply kept aseptic. After the joint was considered cured, it was well to wear an ankle brace for some months to prevent twists. The malpositions found in the acute stages were almost entirely due to muscular spasms, and did not require tenotomy, or other operative treatment.

In the later stages, there might be bony changes, and these, if not painful or progressive, did not require treatment. However, if these conditions did exist, and yet there was no evidence of active disease, an attempt should be made to restore and preserve the normal relations of the parts.

The value of hygienic surroundings during the treatment of these cases could not be overestimated. His observations had been made on children only, and for contrast, an extended series of cases in the adult would be very valuable. Without exception, every one of his cases of ankle joint, or tarsal osteitis in children, had done well under conservative treatment, and he had yet to see the case which he would condemn to erasion or excision.

Dr. N. M. Schaffer said that his own experience led him to think that one point in Dr. Myer's paper should be particularly emphasized, *i. e.*, the necessity of absolute protection of the articulation. He had accomplished this in practice, whenever possible, by the use of a modification of Dow's brace, and had found that adhesive plaster was rarely required, as a well fitting shoe made efficient counter-traction. He thought that the further removed the tuberculous joint was from the centre of the body, the more benign was the disease, and the less the danger of general infection; and he was inclined to speak more strongly of the conservative treatment of ankle joint disease, than of any other articulation in the body.

Dr. Ridlon thought these cases did well with the Dow's instrument; but with this, as with some others, we could not secure immobilization, but only protect the joint from the jar of walking. He had seen such excellent results in cases of suppurative ankle joint disease, without any treatment whatever, that he often doubted how much of a good result could be attributed to the treatment received.

Dr. H. W. Berg said that he had had such good results in the treatment of phthisis by the administration of the bichloride of mercury, in doses of one-twenty-fourth of a grain, three times a day, that he was inclined to believe the old theory that tuberculosis was really a change in the syphilitic virus, due to passing through several generations. He considered that splints like Dr. Judson's were imperfect, for, by taking their bearing from the outside of the foot, intra-articular pressure was increased. To diminish this pressure, the foot must be adducted and rotated inwards.

Dr. Phelps was of the opinion that the vast majority of these cases were cured by immobilization and relief of intra-articular pressure, but in suppurative cases, he believed that the soundest and most scientific surgery demanded operative measures. If we could protect the hip joint as well as the ankle joint, we ought to get equally good results in hip diseases. He believed that these cases were inoculations of pathogenic germs on a diseased surface, and that they were purely local.

Dr. R. H. Sayre exhibited a splint which his father had devised for an adult with ankle joint disease. He agreed with Dr. Ridlon that it was difficult to apply traction at this joint, but he thought this splint solved the problem. His views regarding the prognosis and treatment of this disease were in accordance with those just expressed by Dr. Phelps.

Dr. Samuel Lloyd said that fifteen cases of adult ankle joint disease had been treated in the New York Post Graduate School by the so-called conservative method, but the relapses had been very frequent, and hs thought this method was less likely to yield good results in adults than in children. In answer to questions from the Chairman, he said that several of the cases were due to injury, and a number of them were suppurative, while four were recorded as synovitis. Two of the cases had been discharged as cured before 1883, and were known to be well in 1889.

Dr. Judson protested against the statement that cases of disease in the ankle should do equally well without treatment, although neglected cases of ankle joint disease would have nothing like so bad a deformity as those at the hip.

Dr. H. L. Taylor also spoke about the different mechanical conditions present at the various joints. The weight of the limb exerted great leverage upon the joint, especially in a spasmodic condition of the muscles. It is more marked at the hip than at the knee, and very much more noticeable than at the ankle. He referred to a case of ankle joint disease occurring in a distinctly phthisical subject, where the sinuses were treated by injections of a saturated solution of iodoform in ether. The beneficial effect upon the healing process was almost magical.

Dr. Gibney said that about ten years ago the surgical section of the Therapeutic Society of this city spent about two years collecting data relative to the comparative results obtained by the operative and non-operative treatment of this condition; and the conclusion was that the conservative method yielded the greater number of useful ankles, even in cases where the foot was seamed with cicatrices. There were two or three operative cases having a high degree of equinus, and a stiffened and shortened joint, and one or two flail joints were also shown. In his experience, cases of adult ankle joint disease relapsed again and again on the slightest provocation; later on, abscesses would appear; still later, pulmonary signs would develop, and then amputation would follow. As regards the mercurial treatment of tuberculous disease of the joint, he need only call attention to the fact that many years ago the routine treatment for these cases at the Hospital for Ruptured and Crippled was one-twenty-fourth of a grain of the bichloride of mercury in tincture of bark, three times a day; and the results attained by this treatment were certainly far from striking.

The Polyclinic.

UNIVERSITY OF PENNSYLVANIA.

Prof. Guiteras has been granted leave of absence for sixty days, and started for Berlin on November 20, for the purpose of investigating Koch's new method of inoculation for tuberculosis.

Dr. Formad will lecture on pathology during the absence of Prof. Guiteras.

DR. TAYLOR SUGGESTS FOR METRORRHAGIA:

℞.—Ergotinæ . . . . . gr. xl.
Ext. nucis vomicæ . . . . . gr. x–xx.
Ferri redacti . . . . . gr. xl.
M.—Et ft. pil. No. xx.
S. One pill three times a day.

DR. PEPPER GIVES FOR HYDROTHORAX:

℞.—Mass. hydrarg.,
Pulv. scillæ,
Pulv. digitalis. . . . . āā gr. xx.
Ext. nucis vomicæ. . . . . gr. x.
M.—Et ft. pil. No. xx.
S. One pill three times a day.
Or:
℞.—Hydrarg. chlor. corros. . . . . gr. j.
Potassii iodidi . . . . . ʒij.
Spt. ætheris nitrosi. . . . . fʒss.
Aquæ cinnamomi. . . . q. s. ad. fʒiv.
M.—S. One teaspoonful thrice daily.

FOR ACUTE TONSILLITIS:

Sodii salicylatis, gr. v-x every three hours, and for local application:

℞.—Potassii chloratis, q. s. ad sat. sol.
Tr. ferri chlor.,
Glycerini,
Aquæ . . . . . āā fʒss.
M.—S. Use locally.

FOR SPASMODIC STRICTURE OF ŒSOPHAGUS:

℞.—Ferri valerianatis,
Zinci valerianatis,
Quininæ valerianatis . . . . . āā gr. xx.
M.—Ft. pil No. xx.
S. One t. d.

DR. PEPPER'S TREATMENT FOR ACUTE GASTRITIS:

1. Absolute rest for stomach.
2. Nutritive enemata.
3. To quiet stomach.

℞.—Hydrarg. chlor. mitis. . . . . gr. ij.
Bismuthi submit. . . . . ʒj.
M.—Ft. chart. No. xx.
S. One powder every four hours.
Or:
℞.—Acid. carbolic . . . . . gtt. iv.
Sodii bicarb . . . . . ʒjss.
Elixir. . . . . fʒss.
Aquæ, ... q. s. ad. fʒiv.
M.—S. ʒj every three hours.

4. Opium, hyoscyamus or asafœtida by suppository for nervous systems.
5. Counter irritation over epigastrium.

Give nothing by mouth except for its local action on the stomach.

Especially avoid all purges. If one is necessary use calomel.

FOR ATONIC DYSPEPSIA:

℞.—Zinci valerianatis. . . . . ʒss.
Ext. belladonnæ. . . . . gr. iij.
Ext. nucis vomicæ. . . . . gr. v.
M.—Ft. pil. No. xxx.
S. One pill after each meal.

The Times and Register

A Weekly Journal of Medicine and Surgery.

New York and Philadelphia, Nov. 22, 1890.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

THE TIMES AND REGISTER,
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THE NEW CONSUMPTION-CURE.

IT is with feelings of sadness that we note the uprising of another craze for a consumption-cure, in the public press. The time has not gone by very far since the Bergeon nonsense stirred the very depths of men's interiors generally; and the medical profession should not soon forget the result. So, now, the public has taken hold of Koch's reports, and a vivid imagination, unrestrained by any knowledge of the matter, has magnified it into a therapeutic millennium for consumptives. We will have these unfortunates, ever ready to grasp at straws, happy in the delusive confidences of a speedy cure, while sinking into the grave. Hopes will be excited in cases that are hopeless; people will rise from the bed of death, and undergo tortures to travel in search of an impossible cure. For it should not be forgotten that what we call pulmonary consumption is by no means a simple invasion of bacteria, but a most complex mixture of pathological elements. Many cases are not bacillar at all, but due to the causes of chronic inflammation in general. No "germicide" can be expected to cure an affection which is not produced or kept up by any sort of "germs." In many cases what we call consumption is simply death; molecular death. The vitality of an individual is capable of being measured quantitatively, as surely as the amount of his chest-expansion, or the force of his heart-beat. Exhaustion of the vital principle, the Jiva of Buddhist theosophy, means the extinction of vital life, and as man is not built like the deacon's shay, the feeblest of the vital organs dies first. For many reasons, civilization appears to have rendered man's lungs his most vulnerable point, and here his exhaustion of vitality appears to most frequently manifest itself. This process may be likened to the decay of the oak; or to senile degeneration in those whose vitality is great, and their organs fairly well-balanced in the power of resisting noxæ. For the first class of consumptives, we cannot look for a specific remedy until we know that chronic inflammation has a specific cause. For the second class, we must wait until Brown-Sèquard has demonstrated the vitalizing powers of testicular fluids.

Even in truly tubercular or bacillar phthisis the process is not so simple. As the case goes on there are changes in the digestive apparatus; in the tissues of the whole body; material destructions of large masses of pulmonary tissue; while pyogenic bacteria and possibly other micro-organisms join the tubercle bacillus in its work, in the dead and dying structures of the lung. Even if every tubercle bacillus is slain, and fresh invasions prevented, it is far more likely that patients who are far advanced in the disease will die from the effects of the original destroyer; and that the disease processes put in operation will still remain and prove fatal, even when the exciting cause has been removed. For these reasons we urge that hopes be not held out to consumptives in the later stages; and that, although the task is a painful one, the truth be plainly demonstrated to them.

But even with all these limitations, if Koch's injections succeed in destroying the life of tubercle bacilli in the human body, it is the most precious discovery that has ever been made by man. And while we believe that Samuel G. Dixon, of Philadelphia, originated the idea, and successfully applied it to animals, the elaboration of the method and its successful application to man by Koch are assuredly deserving of the greatest credit. Whether more of credit is due the latter we cannot decide until full details of his method have been laid before us. He has thus far simply presented the profession a brownish liquid, which, he claims, when injected hypodermically, in the prescribed doses, gives rise to certain remarkable phenomena. In healthy persons little effect is produced, in these doses. In tubercular subjects, severe general reaction occurs, with fever up to $105\frac{4}{5}^{0}$ F., pain in the limbs, coughing, great fatigue, and often vomiting. Sometimes slight jaundice or a morbilliform eruption appears. The attack begins in four hours, and continues about twelve hours; after which the patients feel about as usual, or somewhat better. In external tubercular affections, local reaction is marked; swelling and redness appearing; the diseased tissue becomes brownish and necrotic, changing to crusts, which fall off, leaving cicatrices. In lupus these changes are confined to the skin affected, that surrounding the nodules being unchanged. It is presumed that the same thing occurs in the lungs, when tubercle is present there. Koch claims that the certainty of such reaction, occurring in tubercular cases alone, renders this remedy of the utmost diagnostic value. He states that his remedy is not germicidal to the tubercle bacilli, but that it affects only the tissues enclosing the bacilli, causing them to die. Nor has it any effect on dead tissues, in which living bacilli may continue to exist, be thrown off, or re-infest the living tissues. It is therefore necessary, whenever the necrotic tissue is not quickly removed, to guard against fresh infections by continuous applications of the remedy, in rapidly increasing doses. The results of treatment in pulmonary phthisis were: An increase in cough and in expectoration, soon followed by a decrease. The sputa became mucus, and then the bacilli decreased, and disappeared, being occasionally observed later, until expectoration ceased. The

sweats also ceased, and the general health and weight improved. Patients in the first stage were cured; those with small cavities were almost cured, and when there were many large cavities no improvement could be proved. Relapses can probably be cured more quickly than first attacks. In advanced stages the same benefit cannot be expected, for the reasons stated in the first part of this editorial. Possibly a combination of surgical measures with the use of this remedy may prove of value. The question of combining this remedy with the previous treatment of tuberculosis has yet to be answered.

The nature of the remedy can, we believe, be gathered from Koch's statements as to its preservation and administration. An agent which decomposes after being mixed with distilled water, but can be preserved by sterilization or by the addition of carbolic acid, is most probably an organic substance, but not a vitalized one. It cannot be an antagonistic bacterium. These conditions can be filled by the culture-fluid of the tubercle bacillus, deprived of bacilli and sterilized, which was employed by Dixon. Meanwhile, Koch is quite right in keeping the secret to himself. The wild experimentation by ignorant persons that followed Brown-Sèquard's announcement is doubtless fresh in Koch's mind.

THE CHRISTIAN SCIENCE INSTITUTE, OF PHILADELPHIA.

THE same unquenchable yearning for knowledge that caused the representative of THE TIMES AND REGISTER to gain knowledge at the feet of Drs. McCoy and Wildman, led him also to turn his attention to No. 1524 Arch street, Philadelphia, which is labeled as "Christian Science Institute," and "Metaphysical Healing." The legend in the window, announcing that "all were welcome," put aside the natural timidity characteristic to representatives of THE TIMES AND REGISTER.

We deem it valuable for our readers to be acquainted with the various methods of fraud and quackery, so that forewarned they may be forearmed. Far be it from us, however, in giving to our readers the results of this investigation, to merely do so with the view of casting ridicule, or even doubt, upon Christian science—so-called. We will merely endeavor to repeat the interview as it occurred, and if any of our readers become hereby converted to faith-cure, *Amen;* only we would be pleased to have their names, so that we can take them off of our mail list. One must draw the line somewhere.

Our representative was ushered into a cheerful parlor, where a gentleman was indulging in a very materialistic conversation with a guest, who presently departed. We then stated to the gentleman—who, evidently, was in charge of the institute—that it was our desire to learn something of Christian science and metaphysical healing, and the work of the institute. We must, indeed, be very obtuse, for after two hours of hard talking we have, if anything, less knowledge as to what it is all about than before; and it is our firm conviction that they do not know themselves.

The subject is painfully deep, and we must be excused if we are not clear, as clearness is impossible.

1. The Christian Scientist argues that there is nothing material, and that there is no reality except spirituality; that while this present life is an actuality, it is not a reality. We hope we make ourselves clear.

2. That as there is nothing material, while our present bodies are mortal, they are not material, but are merely outcomes of our thoughts or imaginations; in a word, our bodies are nothing more or less than a bundle of thoughts.

3. Spirituality is all good; and to be perfectly well and healthy we need only believe in the truth that already exists, namely, that there is nothing material, but all is spiritual. Disease is material; and, since materiality is not real, disease is only an outcome of our thoughts; therefore, if one's thoughts are guided to the truth, or, in other words, if we are in harmony with the truth, we must deny the existence of disease; and when we are able to do this, we will be well.

"If a man with cancer comes to me," said the metaphysist, "I know that he has wrong thoughts, and that he is in enharmony with the truth; and if I can improve his spiritual condition, and make him realize the truth, namely, that there is no evil in spirituality, and that nothing is real except spirituality, then the man will get well.

"What we call 'material' is simply an embodiment of our thoughts; thus, every thought becomes materialized. Disease germs (if such exist), devil-fish, and other horrid creatures, are merely materialized evil thoughts. As soon as a certain evil thought is effaced, the devil-fish dies."

At this juncture our representative, merely for experiment's sake, mentally materialized a number of remarkable and unique animals. It was also explained that in a similar manner disease was merely the product of evil thoughts, and that, therefore, if the patient's thoughts were guided to the truth, the disease could not exist.

"If a person is in perfect harmony to the truth, no harm can come to him."

"How about a brick falling on his head?" was asked.

"Even this could not occur!"

"But," we asked, "we all have to die, do we not?"

"My dear sir," was the rejoinder, "the day is not far distant when a person will be as much ashamed to die as he is ashamed to go to jail now; and it will not be very long before we can raise the dead."

In speaking of the power of truth, the following instance was cited: An eminent Christian healer has looked at living germs through a microscope, and by merely concentrating his thoughts on the non-existence of evil, has watched those germs die at once. This man should hire himself out as a germicide.

Coming to the method of the treatment of diseases, the operator—who must be a Christian Scientist—should first enthuse spirituality into the patient, then take him into a room called "the silence," and there, mentally, for the space of ten minutes, endeavor to impress the conviction of truth upon him. The patient says to himself, "I am well; this disease does not exist; God is good, and only good can exist; I am perfectly healthy." The operator goes through a similar mental effort, only, instead of impressing the fact upon himself, "thinks" it into the patient.

In the case of disease—say membranous croup—in an infant, the operator can do all the thinking, and the only thing which can interfere with a speedy cure is doubt on the part of the parents.

These are, briefly outlined, the principles of Christian science, in which Christianity, in its true simplicity and truth, is unknown and blasphemed. To them we are all equally as divine as our Saviour.

No prayers can be offered to God. One can only meditate upon the existing truth, and impress it upon our minds. But it is not our province to deal with this view of faith-cure. Suffice it to say that it is an agglomeration of illogical and unfounded misstatements; laughs at both science and religion; and the sooner the practice of their methods be discountenanced by health authorities as gross malpractice, the better for the suffering public, both mentally and physically. They ridicule sanitation, medicine, and hygiene, and teach its defiance. Surely, the profession should be awake to these idiotic methods, and aid their suppression.

Annotations.

DR. R. J. LEVIS.

OUR readers will join in our profound regret in hearing of the death of this distinguished surgeon. Some years ago Dr. Levis retired from active professional work, so far as his attached friends would allow. He has since divided his time between European trips, yachting in the waters of Florida, and the beautiful home at Cedarcroft that was formerly occupied by Bayard Taylor. We understand that Dr. Levis died of pneumonia, after a very brief illness.

Letters to the Editor.

WHILE glancing over the columns of THE TIMES AND REGISTER recently, my attention was attracted to a report relating to the annual visit of the Inspector for the Board of State Commissioners of Lunacy, of Pennsylvania.

As a matter of information, it occurred to me to inquire if those authorized had ever visited two cases to be found in the same family, about two miles south of the village of Tylerville, so-called South Rutland, Jefferson county, in the St. Lawrence State Hospital District, New York State. J. A. W.

A SPECIFIC FOR RHUS AND IVY POISONING.

A. H., aged sixty years, a laborer, came to my office with an inflammation of the skin of the hands and forearms extending to the middle of the arm. Beginning with lotions of lead-water I tried the most effective remedies for rhus poisoning, which careful inquiry into the patient's habits proved this to be, and was much chagrined to find that nothing gave relief to the itching and burning, or held in check the inflammation.

As a *dernier ressort* a strong decoction of chestnut leaves (*Castanea Fagus*) was used, bathing the inflamed parts every three or four hours. In twenty-four hours all the distressing symptoms had subsided, and the patient was discharged cured.

Since using the above, which was in August 1888, I have prescribed the castanea treatment for all cases of rhus and ivy poisoning, and in all stages of the inflammation, with the single result in every case of perfect relief from all symptoms in from twenty-four to seventy-two hours.

I do not find this treatment in books on diseases of skin which I have read, and therefore offer it to the profession as a mite from S. B. STRALEY.

HUNTSVILLE, N. J.

REMOVAL OF PAROTID GLAND.

I WISH to report a case of removal of an enormous hypertrophy of the parotid gland, weighing after removal, one and a quarter pounds. The external carotid artery was ligated early in the operation.

I do not consider the case cancerous at all. The patient is a large woman, aged sixty-five years. The tumor has been growing for thirty-five years. An attempt at removal was made by a physician ten years ago, but given up. Her hearing was absent from pressure on this side. The pain in her face was severe and continuous, mainly from pressure on the nerves. The parotid artery was enlarged to the size of a lead pencil. I ligated this; also the temporal artery. The nerves were included in the mass, and hence were cut off. The patient made a speedy recovery. The operation was made one month ago. I do not think it will return, as I succeeded in getting every vestige of the gland from in front of the mastoid bone, and do not, as I said before, believe it to be cancerous; neither do I think it scrofulous. Prof. Henry H. Smith took rather a gloomy view of these growths of the parotid in his work on operated surgery, saying that they return and are generally cancerous. I will report if the tumor returns. This case was reported, and the tumor exhibited at the meeting of the Union Medical Association of Northeastern Ohio, in Canton, November 11, 1890.

A. W. RIDENOUR, M.D.

Pamphlets.

Report on Surgery. By W. L. Rodman, M.D., Demonstrator of Surgery, Medical Department University of Louisville. Reprinted from the *American Practitioner and News*.

A Regional Study of Tumors. By W. L. Rodman, M.D., Demonstrator of Surgery, University of Louisville. Reprinted from the *American Practitioner and News*.

The Effects of Dry Atmosphere on Chronic Inflammation of the Larynx and Nares. By E. Fletcher Ingals, A.M., M.D. Reprinted from the *Journal of the American Medical Association*, October 11, 1890.

The Rotary Element in Lateral Curvature of the Spine. By A. B. Judson, M.D., New York. Reprinted from the *Medical Record*, November 1, 1890.

The Medical Digest.

SULPHONAL IN DIABETES.—Dr. Casarelli, of Pisa, mentions the favorable action of sulphonal in diabetes. This drug diminishes the quantity of sugar in the urine, also reducing the polyuria and the thirst. These results were obtained by doses of from 5 to 30 grains per diem, but not to so marked a degree as with doses of 45 grains continued for several days. The 30 grain doses could be administered for some time without any ill effects; but although the 40-grain doses at first caused no disturbance, it was found that, when they were continued for any lengthened period, they caused giddiness and excessive sleepiness, which disappeared when the drug was discontinued. Sulphonal was used with good results in conjunction with both a mixed diet and a strictly meat diet; in the latter case a large quantity of sugar appeared in the urine as soon as the sulphonal was stopped. In the only case in which antipyrin had been previously used it was found to exert less influence than sulphonal.—*Lancet.*

MANGANESE.—The so-called indifferent iron preparations have been in use for some years, but they seem likely now to be replaced by similar preparations of *manganese*. The presence of compounds of both these metals in the blood is well-known, and their function as constituents of that fluid is believed to be that of carrying oxygen to the red blood-corpuscles. Manganese is further regarded as being in this respect more active.

In the first instance, however, inorganic compounds of manganeses were employed (in chlorosis, etc.), and probably owing to the insolubility of these or their non-adaptability to assimilation negative results were obtained. More recently combinations of manganese with the so-called albuminate, peptonate, and other organic groups have been studied by Dieterich. Pepto-mangan "Gude" containing about 0.6 per cent. of iron with 0.1 per cent. of manganese is much prescribed. It is a preparation which mixes perfectly with milk and wines (free from tannin) and has, according to various medical authors, a decidedly good effect in chlorotic and anæmic conditions, and in all other diseases were iron and manganese are indicated in a non-irritating and readily assimilable form.

—*Provincial Med. Jour.*

TREATMENT OF ERYSIPELAS.—Dr. Ulrich, a Danish military surgeon, having had eighty-nine cases of erysipelas of the face in young soldiers, has published in a comparative table the results of the three different methods of treatment which he adopted, viz., the application of ice compresses, painting with pine tar, and painting with a solution of ichthyol in its own weight of ether and double its weight of flexile collodion. Thirty-three cases were treated by the first method; in twenty of these the erysipelas spread considerably, in four slightly, and in nine not at all. Twenty-seven cases were treated with tar; in fourteen of these there was much spreading, in one a little, and in twelve none. Twenty-nine cases were treated with ichthyol; in these the spreading was considerable in eight cases, slight in six, and in fifteen there was none. The mean duration of the disease under the ichthyol treatment was 6.88 days, while under the ice and tar methods it was 8.33 and 9.3 days respectively. The relapses, too, were decidedly less numerous under ichthyol than under either of the other plans. Dr. Ulrich suggests that still better results might be looked for if the ichthyol were painted not merely over the affected parts, but over a considerable portion of the surrounding skin.

—*Lancet.*

CEREBRO-SPINAL MENINGITIS AFTER A BLOW ON THE HEAD.—In the *Fortschritte der Medizin*, October, 1890, Saltzman and Homén report a case occurring in a young man, aged twenty-four. The patient became unconscious after a blow on the head. When he came round he vomited vigorously; a little later he complained of giddiness and pain in the right side of the head, He was somewhat drowsy. There was no trace of an external wound.

Second Day.—Very pale; mind clear; no sensation troubles; tenderness behind right ear. Temperature, evening, 99°; pulse 60.

Third Day.—Languor and pallor increasing. Temperature, morning, 98.2°; evening, 103°. Pulse 40 and 70. During the night a strong convulsion, after which he lost consciousness.

Fourth Day.—Unconscious, though restless at times; right pupil contracted; occasionally spasm in various groups of muscles; very marked retraction of head. Temperature, morning, 100.8°; evening, 103.2°. He died in the night.

Post-mortem.—No trace of any external wound; no surface hemorrhage; along veins of pia mater unmistakable pus; spinal membranes injected; the pia mater infiltrated with pus, especially in the lumbar region; spleen enlarged.

Herr Homén calls attention to the fact that according to the investigations of Netter (*Arch. Générales*) and others the blow may possibly have determined the attack of cerebro-spinal meningitis.

EXACT DOSAGE IN THE CATAPHORETIC USE OF DRUGS.—In a paper of mine there are figured two cataphoretic electrodes devised for the anodal diffusion of drugs through the skin. The great drawback, until this present moment, has been the difficulty of accurately regulating the amount of drug introduced. For this purpose rather complicated electrodes have hitherto been required, and even these have been unsatisfactory. I have recently found, however, that all difficulties are easily obviated by the use of a new and exceedingly simple method. Messrs. Waite and Bartlett have made for me a cataphoretic electrode of metal. Instead of covering it, as before, with sponge, the ordinary metal surface is overlaid with a thin disc of platinum, and around the edge of this is placed a narrow rim of soft rubber. The drug to be used is put drop by drop upon a disc of ordinary tissue paper cut to fit the disc of platinum. Filtering paper or linen cloth may be used instead of tissue paper. A disc two or three centimeters in diameter will hold from one to four drops of the solution. When the medicated disc is placed upon the metal surface of the electrode, and the latter then applied to the skin, it is evident that there is a thin capillary layer of the drug in solution exposed to the cataphoretic power of the anode, between the electrode and the skin, and that the quantity of the drug used may be accurately estimated. The current is allowed to flow if desired until the medicated disc becomes perfectly dry. In this way we may drive in one or more drops of chloroform, methyl chloride, ether, ten to twenty per cent. solutions of cocaine, a one per cent. solution of helleborin, solutions of iodide of potassium, corrosive sublimate, aconitine—in fact, any drug we wish to employ in this manner; and at the same time we know exactly how much we are using.

To further simplify the method, I have had medicated cataphoretic discs prepared by a pharmacist for use at any time, for the paper discs may be charged with any amount of a watery solution, and, the water being allowed to evaporate, they may be kept on hand indefinitely. It is only necessary to add two or three drops of water to the disc in administering the drug by electricity.—Peterson, *N. Y. Med. Jour.*

HODGKIN'S DISEASE.—At the Medico-Chirurgical Society of Montreal, Dr. R. L. Macdonnell exhibited a male patient, aged twenty-five, a freight checker, the subject of Hodgkin's disease. Up to four years ago the patient had enjoyed good health, but about that time he suffered from a severe and prolonged attack of what was called "bronchitis." There were severe attacks of dyspnœa, which came on exertion as well as when he was at rest, and cough was very severe and brassy. He made a good recovery and continued well until two years ago, when he began to notice the presence of lumps in his neck. These have gradually increased in size. Two months ago the breathing became seriously embarrassed, and suffocative attacks of the most severe kind occurred, especially when in

a recumbent position. In the beginning of August he presented himself at the Montreal General Hospital, suffering from attacks of dyspnœa and from a bad brassy cough. On August 11 a chain of glands was removed from the front of the trachea. These were found to extend very deeply into the chest, and were continuous with other glands in the mediastinum. He made a good recovery from the surgical operation and since then has not suffered from attacks of dyspnœa, though his breath is short on exertion, and he still suffers from cough. When a boy he remembers that frequently there were large painful lumps in the armpits. Epistaxis has been frequent during the last six months. No history of any venereal disease. The glands in the left side of the neck are enlarged, prominent; distinct from each other; loosely attached; of firm structure. There are two or three enlarged glands in each axilla, but none in groin. The spleen is enlarged, but cannot be felt below ribs. The liver is of normal size. Examination of the urine yields negative result. The skin generally is clammy, but always on the left side of the forehead and face there is very free perspiration. The left pupil is much larger than the right. Examination of the heart and lungs negative. Temperature, in afternoon, has generally been 1° or 1½° above normal. Pulse is always between 100 and 110. No member of his family has suffered from enlarged glands. Examination of blood reveals a large excess of white cells. But one count has been made. For the last month Fowler's solution has been taken regularly with apparent good result. About a fortnight ago the patient experienced a sudden seizure which he described as follows: He was lying upon a sofa when he felt as if some fluid were running up in his throat; he coughed, and immediately becoming insensible fell over on the floor, injuring his head in the fall. He was said to have remained unconscious for a few minutes.—*Montreal Medical Journal.*

Panicum as a Food Article.—In *Vratch*, Nos. 37 and 38, Lipskey publishes an important paper on the *Panicum sanguineum vel Digitaria sanguinalis* as a substitute for other corn plants, especially millet and buckwheat. The plant belongs to the *Gramineæ*. In a wild state it grows in abundance all over Europe, Asia, and America. It is cultivated, as a cereal, in Bohemia, Russia, and of late, in certain regions of Germany. According to Khvoika, "this corn plant is exceedingly far from being particular in regard to either climate or soil; in fact, it grows beautifully on an utterly poor or exhausted ground, as well as on stony or rocky tracts of land, and even on quicksands." With this, the cereal is endowed with a striking fruitfulness; each seed brings forth about eighty stalks, with as many ears, or to put it otherwise, a couple of pounds of seed give a crop amounting to 4,000 pounds of grain. The latter are rather small (about half the size of a millet-seed) and are covered with a hard, grayish hull; decorticated grains being of a white color, with a yellowish tint. The chemical composition may be seen from the following table, which presents (in percentage figures) the results of numerous analyses made by Levin under Konovaloff's guidance:

	Whole Grains.	Decorticated Grains.	Panicum Flour.
Water	10.48	—	11.23
Nitrogen	2.08	1.07	0.11
Starch	40.78	73.88	85.39
Ashes	4.60	—	0.34
Cellulose, etc.	30.57	—	1.25
Fats	—	—	0.94

For the sake of comparison we adduce a table showing the composition of various grits in vogue:

	Millet.	Rice.	Pearl-Barley and Semoule.	Buckwheat.
Water	12.01	13.11	12.88	14.57
Proteids	12.25	7.85	7.25	10.96
Fats	3.31	0.85	1.15	—
Carbo-hydrates	68.91	77.15	77.55	66.71
Ashes	3.52	0.01	1.23	—

In order to determine the dietetic value of panicum, Lipsky has carried out some experiments on himself and another doctor. Each experiment lasted two days, during which the subjects' dietary consisted only of a thick-boiled panicum gruel, tea with sugar, and drinking water. It was found that one of the subjects had assimilated 62.4, and the other 60.9 per cent. of nitrogen ingested. According to Kürtcheninoff's experiments with millet gruel, the assimilation of its nitrogenous bodies varies between 49.427 and 51.254 per cent. Südakoff has found that in the case of thick-boiled buckwheat gruel the assimilation amounts to 40.4 per cent. In the case of potatoes the assimilability of nitrogenous ingredients oscillates between 49.6 and 65.1 per cent. In consideration of all the facts, Lipsky arrives at the general conclusion that "the panicum can be safely placed amongst useful vegetable food-articles."

—*Provincial Med. Jour.*

Erythromelalgia.—In the latter part of last July I was called to Mrs. G——, and obtained the following history: She was sixty-two years of age, had borne four children, and by occupation a nurse. Her parentage had been healthy, father dying at ninety-six from an accident. Her own health had always been good up to last April. At this time she was nursing a case of puerperal septicæmia, and a number of times daily had to wring out cloths dipped in hot carbolic acid solution. After doing this for several days Mrs. G—— noticed her feet to be very painful, and on examination blue and swollen on the anterior portion. These symptoms became so severe as to oblige the patient to give up her profession and take to her bed. The pain was excruciating, especially at night and on pressure, the attacks coming on paroxysmally.

When I was consulted I found her much emaciated, with atheromatous arteries, obstinate constipation, feet presenting, over the anterior and lateral aspects, especially on the plantar surfaces, irregular bluish purple spots, very sensitive, and sweating freely. Urinalysis gave negative results.

The treatment consisted of a ferruginous tonic, the usual hygienic measures, and cold affusions locally; while the general condition improved the local did not. The local application of belladonna, hot water, etc., failed. Electricity only aggravated it. I then decided to put her on arsenic—the liq. acidi arseniosi—directing it to be pushed until physiological symptoms became manifest.

After several days of this treatment the patient began to improve, and six days after walked around the block with ordinary shoes being the first time in months that she had been able to tolerate any covering on her feet. Improvement went on so rapidly that a week ago I stopped the arsenic, no unfavorable symptoms having appeared to this time. Whether the carbolic acid may be considered in the relation of cause and effect, or simply coincident, I am unable to say. The failure of all other remedies and the favorable influence of arsenic in this case, certainly warrants a faithful trial in this painful affection.

—Wendel, *Med. Record.*

Excision of the Gasserian Ganglion.—Mr. William Rose related a case in which he had removed the Gasserian ganglion in a lady, aged sixty, who for years had been subject to most acute neuralgia, first affecting the inferior division of the fifth nerve. He first stretched the inferior dental nerve and divided its mental branches. This gave some passing relief, and he did not see the patient again until March, 1889, when, as she was suffering from severe pain, he trephined the lower jaw and cut away a piece of the nerve trunk. Relief again followed, but in March of the present year her old pain had returned, the right side of the tongue being involved in addition, indicating extension of the mischief to the lingual nerve. He, therefore, cut down upon the inferior dental and lingual nerves in the pterygoid region, through an incision parallel to the zygoma. He observed that he had performed this operation on several occasions at the suggestion of Mr. Victor Horsley. This operation was not very satisfactory, owing to the abundant hemorrhage, but he felt convinced that he had divided and partially excised both nerves in this region. The result of this operation was to produce numbness on the right side of the tongue and integument of the lower part of the jaw. Unfortunately the pain which had occasionally manifested itself in the upper jaw and cheek became greatly intensified. It implicated the alveolar border of the right upper maxilla and extended to the vertex of the head, showing that the superior maxillary division of the fifth nerve was involved. He then determined to proceed to the removal of the Gasserian ganglion, as suggested by his colleague, Dr. Ferrier. He decided to remove the upper maxilla, at the same time—(1) because he believed that there was extensive disease of the nerves in the maxillary bone itself; (2) that the manipulations at the base of the skull would be greatly facilitated by removal of the upper jaw, and (3) in deference to the express wish of the patient that, whatever he did, he should remove what she called the "focus" of her suffering. Accordingly, on April 2, he proceeded to remove the upper maxilla in the usual way, and then, with a skull in front of him to serve as a guide, he inserted the pin of a half-inch trephine into the foramen ovale, and removed a ring of bone, which he handed round. He then caught sight of the Gasserian ganglion lying on the petrous bone, passed an aneurysm needle gently beneath it, and removed it without injuring the dura. The patient suffered somewhat from shock, but on the following day her condition was satisfactory. She, however, complained of heat and pain at the back of the right eyeball, which was very congested. This increased, and resulted in panophthalmitis, necessitating removal of the eye. Her progress in all other respects was very satisfactory. The old pain had quite ceased, and had not since returned. He thought that, in future, when it was necessary to remove the ganglion, this might perhaps be accomplished without removing the jaw. He extremely regretted the loss of the eye, but was disposed to consider it as accidental, and not a necessary result of the operation. As for the patient, she delared that she was now better than she had ever been, and would prefer blindness to the pain she formerly experienced.

—*British Med. Jour.*

Tubercular Peritonitis and Double Pleurisy Resulting in Recovery.—The patient, a youth of seventeen, by occupation a barman, came under my care in Middlesex Hospital, on October 26, 1888. There was an indefinite history of consumption in some relatives on the mother's side, and of a slight attack of ascites with whooping-cough in his own case when only three years of age, otherwise he had always enjoyed good health and been sober. Nine days before admission he began to suffer from some abdominal pain and swelling. The latter condition gradually became more marked, and on admission he was found to have a considerable amount of ascites, the belly measuring thirty-four inches in girth at the level of the umbilicus. His temperature was 100° F., pulse 120, and resp. 24, tongue rather dry and coated. In the chest at both posterior bases there was impaired resonance with diminished vocal fremitus and scarcely audible breath sounds. At the line of commencing dullness on the left side faint friction sounds were present. The area of dullness, especially on the left side, gradually increased for about a fortnight, the friction sound became more marked, he lost weight, and sweated at night. For a few days at first the ascites also increased, the girth of the abdomen measuring thirty-eight inches on November 2, but it soon began to diminish, and by November 13 the girth amounted only to thirty-two and one-half inches. The temperature also at this time was noted to have been normal or subnormal with only one exception, for several days, having previously ranged between 99.2° and 103.2° F. On November 30 the ascites had disappeared altogether, and the pleural effusion was rapidly declining. Coarse friction sounds were heard over the lower half of the left chest, but these soon cleared up, and he continued to make steady progress in convalescence. On January 30, 1889, he was sent to a seaside convalescent home, the abdomen presented a diffused sense of resistance on palpation over its lower half, suggesting matting together of portions of the intestines; while in addition masses of more definite character were felt in the left upper umbilical and iliac regions, and in the right lower umbilical region. After three weeks' residence at the seaside he returned to his work, and presented himself for examination at the hospital on March 13, when it was found that the masses near the umbilicus were less plainly felt than formerly, and that one in the left iliac fossa had disappeared. He had gained ten pounds in weight, and the condition of his chest was quite satisfactory, presenting nothing abnormal except slight impairment of resonance and weak breathing for a couple of inches at the posterior bases. The case was brought forward, not because there was anything unusual in recovery from tubercular peritonitis, but to accentuate the fact that the reverse was the case, recovery being much more frequent than had been commonly thought, especially by the older writers. The statements made by various writers in text-books on medicine were quoted, and statistics given of thirty-five cases occurring in the Middlesex Hospital, of which nineteen were discharged as recovered or relieved. Reference was also made to a paper by Dr. Osler, of Johns Hopkins University, in which a similar view was taken to that put forward in connection with the present case as regards the prognosis in tubercular peritonitis.

—Finlay, *Medical Press and Circular.*

After-treatment of Abdominal Sections.—The entire wound being closed, the ends of the sutures are gathered together in one hand and cut off several inches from the knots. I now proceed to dress the case with my favorite dressing, which consists of:

1. Powdered iodoform sprinkled over the surface of the abdomen, particularly into the umbilicus.

2. Sublimated cotton.

3. Broad adhesive strips of rubber plaster to hold the previous dressing in place.

4. A wide flannel binder, smoothly pinned with safety pins.

To-morrow, at 1 o'clock, or within twenty-four hours, the patient is to have a cup of tea, and she will consider this the best cup of tea that she has ever tasted in her whole life. If she suffers in the meantime from collapse, she is to have sips of whiskey. If she has excessive thirst, she will have enemata of beef-tea.

I trust that she will be able to get along without any opiate, because opium has the effect of stopping the bowels and the other emunctories; but, if she suffers very much, she is to have a hypodermic injection of morphine.

After getting the tea, to morrow, she is to receive, for the first few hours, a dessertspoonful of milk, which is to be administered every hour; and, if it be well received, she will, by nightfall, be able to take one tablespoonful every hour for several hours, and then two tablespoonfuls every two hours. This quantity is to be gradually increased, so that by the end of the third day she will be getting, during the twenty-four hours, as much milk as she can retain and readily digest.

As I mentioned previously, she is to receive no opium, unless it is absolutely necessary to relieve pain, because it has the tendency to stop the bowels; moreover, though it was once considered necessary, after these abdominal operations, to keep the bowels closed for a week or more, such an opinion is no longer in vogue among medical men.

The bowels are to be moved on the second or third day, and the greatest precautions are to be taken in order to prevent any constipation in this case. She is to be urged not to hesitate to pass her wind, no matter who may be present at the time, lest the distended bowels exert a pressure upon the region of the wound, and set up a peritonitis. If she does fill with wind, let the bowels be moved on the second day. For this purpose, I generally order a Seidlitz powder, adding to the contents of the blue paper a dessertspoonful of Rochelle salt. If she vomits, she is to receive large doses of calomel, for the reason that this medicine is heavy, and not liable to be vomited. I give as much as 10 or 20 grs. at once, and repeat it until bowels are moved, having given as much as 75 grs. during the twenty-four hours, feeling sure that at least a part of this heavy substance must have been kept down, however violent the vomiting may have been.

If the flatus be low down in the intestines, and reachable, it is sometimes removed by the introduction into the rectum, or even higher when necessary —into the sigmoid flexure of the colon—of a flexible catheter. In any case, should tympanites or septicæmia become evident, let the bowels be moved. This latter condition is shown by peritonitis; by the pulse rising above 120, and the temperature going above 102° F., when ice is to be applied to the head.

Should obstinate vomiting occur, ice will be given, or sinapisms applied to the epigastrium.

As a rule, it is necessary to catheterize for a day or so after these operations, but it is to be avoided as much as possible, as the too frequent use of that instrument is likely to cause an irritable bladder that is not easily amenable to treatment.

From a week to eight or nine days the primary dressing will be ready to be removed, and the stitches taken out.—Goodell, *Jour. Amer. Med. Assoc.*

GUAIACUM AS A PURGATIVE.—In our thirst for new remedies, there seems to be a danger that some of our good old-fashioned drugs may be forgotten. Take guaiacum, for example. In most of our text-books on materia medica, we are told that guaiacum resin acts as "a stimulant, diaphoretic, and diuretic." I cannot find that there is much evidence in support of this view. Wood, of Philadelphia, seems to be of the same opinion, for he says: "Guaiacum is believed by some to act as a diaphoretic, and to do good by increasing the elimination of the skin; but as I have not been able to obtain—either from medical literature or from the exhibition of the medicine—any distinctive proof of its having any such action to any marked extent, I have preferred to consider the drug as an alterative." Schmiedeberg, of Strassburg, curiously enough, deals with it under the head of "Drugs and preparations used for all sorts of purposes, but now mostly antiquated and obsolete." I am inclined to think that its main action is as a laxative or purgative, and this view is evidently shared by Dr. C. D. F. Phillips, who, in his well-known work on the "Vegetable Kingdom," states that in large doses it produces "dryness in the mouth, burning in the throat, a sensation of heat in the stomach, loss of appetite, heartburn, flatulence, nausea, vomiting, and purging." My attention was drawn to the subject some two years ago, by casually prescribing for a city man suffering from rheumatism some guaiacum lozenges, made up with black current paste. He continued taking them long after the pains had ceased, and his explanation was that they did him good by acting on the liver and bowels. He said that one or two of the lozenges taken in the morning, before breakfast, acted promptly and without inconvenience. I ordered the lozenges for other of my patients suffering from constipation and what is conventionally called "biliousness," and the result was equally satisfactory. The lozenges not being available for hospital use, I had a confection prepared, containing 10 grains of guaiac resin to a drachm of honey. This was curiously popular with the patients, and for the last two years I have used it extensively, not only as a purgative, but in the treatment of chronic rheumatism, sciatica, tonsillitis, dysmenorrhœa, and allied affections. The confection is nasty, but is appreciated by patients. At first I gave it in drachm doses once a day; but they were not satisfied with this, and I had to increase the dose to two drachms three times a day. In this quantity it seems capable of producing the maximum of inconvenience and discomfort, and gives unlimited satisfaction. The purgative effect is very pronounced, and in one case the patient had fifty-six evacuations in the week. In another case it produced a well-marked rash, covering the arms and legs with an eruption which forcibly reminded one of copaiba, That this rash is rare may be gathered from the fact that my colleague, Dr. C. T. Fox, had seen only one similar instance. It was accompanied by intense itching, which disappeared on discontinuing the drug. The guaiacum not infrequently gives rise to a burning sensation in the throat, and to obviate this I prescribed the 10 grains of the resin in half an ounce of extract of malt, which answered admirably. This method of treatment is, perhaps, simply a return to the old-fashioned "Chelsea Pensioner," which consisted of guaiacum, rhubarb, ginger, sulphur, and certain other ingredients; but it is interesting, nevertheless. I am sure that a trial of the guaiacum resin as a laxative or purgative, according to the dose employed, will be found satisfactory. It is possible that if the drug were triturated with cream of tartar,

sugar of milk, or some other equally inert substance, its efficacy would be increased, and it would produce the desired effect in smaller doses.

—Murrell, *Med. Press and Circ.*

Beri-Beri in the Provincetown Grand Bank Fishing Fleet.—In the fall of 1889 I was called upon to attend seven cases, coming from two different vessels.

The prominent symptoms in each case were general œdema, shortness of breath with precordial distress, numbness of the lower extremities with a peculiar shuffling gait, showing marked inability to lift the lower limb at the knee. One case only was confined to the bed, and that was marked by an advanced stage of hydrothorax, dullness on percussion and disappearance of the respiratory murmur, the pulse was weak, irregular and very much increased in frequency, and after five days the patient died with all the symptoms of pulmonary œdema and heart failure. The other cases, after a period varying from two to six weeks, recovered. One man died on the passage home, and the history of the case, as near as I could ascertain, was similar to that just stated. In three cases there was marked enlargement of the spleen; in only one case was there any trace of albumen in the urine, and there was a doubt if that was due to the disease in question. The urine in all was scant, high colored, and contained an excess of urates; there was no retention in any case; the temperature was normal in all; the knee-jerk in two cases was entirely lost, in all diminished; the digestive organs seemed to be but little affected; the appetite was fairly good in the majority of cases; nausea and vomiting were present in one case, but was easily controlled; the bowels in all were constipated, but no more than is usually the case in those that go to the Grand Banks fishing, resulting probably from the kind of food furnished on such voyages, and neglect in going to stool.

The prodromic period in these cases, as nearly as could be learned from the patients themselves, was characterized by general weakness and depression, and an indisposition to work; an œdematous condition of the areolar tissue on the anterior parts of the legs manifested itself, together with severe cramps and pains of a neuralgic character. That the disease was beri-beri there is no doubt, for the symptoms are identical with those described, proving conclusively that the bacteria or septic organism may be produced independent of any earthy or climatic influence, and in a latitude as far north as 45° or 46°.

The undoubted causes of the disease in these cases was defective nourishment; the vessels were poorly fitted for the voyage, the two previous years having been unfortunate ones pecuniarily for the owners, in consequence of which the outfit was cut off in every possible way, the salt beef was of a poorer quality than usual, and the stock of fresh provisions was very meagre. The dampness and cold which is always present on the Grand Banks would undoubtedly act as a factor in developing the disease in a system impoverished and rendered anæmic from a diet of unwholesome food deficient in nitrogenous principles. The catch of fish was at irregular intervals, so that having that article in a fresh state was a rare occurrence. The majority of cases in which this disease occurred were strong, able-bodied men, in whom there were no previous traces of any constitutional disturbance.

Treatment.—Diet seems to form an important part of the treatment of this disease. A mixed diet composed of the coarsely prepared grains, as oatmeal, wheat, etc., with a liberal allowance of fresh beef, in my own experience, is to be preferred. In regard to medication the treatment is rather expectant than specific. Diuretic, and hydrogogue cathartics are indicated when the dropsical effusion is marked; digitalis, to stimulate and control the heart's action. Tincture of chloride of iron and iodide of potassium were also prescribed with apparent benefit.

October 27, 1890. Since writing the above and during the past week about twenty cases of the same disease have been landed here on vessels arriving from the Grand Banks, eleven cases occurring on one vessel out of a crew of thirteen; two of the cases died, with the symptoms as before described, within twenty-eight hours after being brought ashore.

—Birge, *Boston Med. and Surg. Jour.*

Effect of Drugs on the Pulmonary Circulation.—Through the kindness of Dr. Bradford, of University College Hospital, and of Dr. Bokenham, assistant to my colleague, Dr. Lauder Brunton, in the science work-room of St. Bartholomew's Hospital, I am enabled to lay before you the following statements as to the comparative effect of certain substances upon the two circulations. Their researches were carried on entirely independently of each other, and yet their results are practically identical.

Muscarin.—In the *British Medical Journal* for November 4, 1874, Dr. Lauder Brunton gives the following account of the action of muscarin on the heart. Having thoroughly narcotized a rabbit with hydrate of chloral, he commenced artificial respiration, and opened the thorax. Both sides of the heart seemed to be equally filled, the veins only moderately distended, and the lungs rosy. On injecting a little muscarin into the jugular vein, everything at once changed. The lungs became blanched, the left side of the heart became small, the right side swelled up, and the vena cava became greatly distended. After a short time, a little atropine was injected into the jugular vein, and everything instantly returned to its normal condition. The left side of the heart regained its former size, the right side diminished, the distension of the veins disappeared, and the blanched lungs again assumed a rosy hue. Distrusting his own personal observation, Dr. Brunton got two observers who knew nothing about the experiment, and repeated it before them, noting down their observations, which agreed exactly with his own. It is all but impossible, I think, either to doubt the accuracy of the record of this experiment, or to attribute the phenomenon observed, especially the simultaneous distension of the pulmonary artery and the blanching of the lungs, to any other cause than the action of vasometer nerves. Subsequent observers seem to have failed to obtain the striking effects witnessed by Dr. Lauder Brunton, but his account is substantially confirmed by Dr. Bokenham, who tells me that muscarin in a small dose causes rapid fall in the carotid pressure, with, in most cases, a rise in the pulmonary pressure. This rise, however, is not long maintained. The pressure in the pulmonary artery sinks to normal, whilst that in the carotid more slowly rises to its original level. A large dose seems to produce paralysis of the heart and rapid fall of pressure in both circuits.

Amyl Nitrite given by inhalation caused rapid fall in carotid pressure, with simultaneous marked rise in pulmonary pressure. Carotid pressure then rises, and during this rise the pulmonary pressure resumes its original level.

Nitro-glycerine.—In the cat one-fiftieth grain produced a temporary great fall of the carotid, with a slight rise of the pulmonary pressure. When, however, the carotid fall had reached its lowest point the pulmonary pressure also fell. The carotid pressure then rose, but not to the normal figure. At the beginning of this rise the pulmonary pressure showed some tendency to fall, but remained nearly constant. In the dog, one-fiftieth grain produced a primary fall in the carotid, with little or no effect on the pulmonary pressure. A subsequent gradual rise of the carotid pressure then took place, with a very slight fall of pulmonary pressure during the greater part of the rise.

Digitalis.—Digitalin caused steady rise of blood pressure both in carotid and pulmonary arteries, with great slowing of pulse. Tinct. digitalis: In dogs, slight fall in carotid pressure following soon after injection. At this time practically no effect on pulmonary pressure. Following this a steady rise in both pulmonary and carotid blood pressure. Inf. digitalis: In cats, primary rise in blood pressure both in carotid and pulmonary arteries, followed by slight but more permanent rise. (The primary rise here was probably due to the fact that a large quantity of fluid had to be introduced, as the same result followed the injection of a similar quantity of water.)

Tinct. Strophanti.—In cats, a small dose (namely, minim i–ii) produced a primary fall of pressure in both carotid and pulmonary arteries, and a subsequent rise in pressure almost up to normal; heart at same time slow and irregular. A large dose produced first a great rise of carotid pressure, the pulmonary pressure sinking slightly at first and then rising slightly. Then great quickening of heart with steady fall of pressure in carotid; the pulmonary falling to, but not below, its original level.

Ergot produces primary rise in pulmonary, with simultaneous fall in carotid pressure. This rise, however, is of short duration. Subsequently both pressures rise.

Aconite produces fall in pressure in both carotid and pulmonary arteries.

Strychnine, in bote carotid and pulmonary arteries, produces a rise in pressure, especially marked in the pulmonary.

Chloroform.—Both pressures fall together.

Ether.—Both pressures rise together.

Atropine (*Sulphate*) produces first a steady fall in carotid pressure, the pulmonary sinking at the same time, but in much less degree. During this period the heart is slowed, and the vagus nerve is excitable. Next pressure rises in both, and pulse becomes more frequent, the inhibitory power of the vagus being gradually abolished. When the pressure reaches its highest point, the heart cannot be stopped by stimulation of the vagus, and a second dose of atropine will have no further effect.

Quebracho (*Tincture*) produces in carotid a primary fall, in pulmonary a slight rise, followed in the carotid by a steady rise to a higher point than normal, whilst in the pulmonary artery the higher level already reached is maintained; finally, in the carotid the pressure becomes very great, whilst in the pulmonary artery it does not rise above the slightly higher level it reached at first.—Andrew, *Provincial Med. Jour.*

PENZOLDT states that the occasional failure of orexin may be explained by the insolubility of the coating on the pills. The drug should be used in wafer.

Medical News and Miscellany.

DR. D. E. SALMON has been assigned, by the Bureau of Animal Industry, to arrange for the inspection of meat in Chicago.

A PHARMACEUTICAL chemist of Woronesh, in Russia, has been condemned to six months' imprisonment for selling adulterated quinine.

GENERAL BOOTH, in his book, "In Darkest England," says: "Out of every five persons in London, one dies either in the hospitals, asylums or workhouses."

DR. BOSWELL GORHAM, of Lexington, Ky., was shot and killed on November 11 by a colored farm hand. Dr. Gorham was fifty-five years old, and had retired from practice for some years. During the war he was a surgeon in the Confederate army.

THE work on "Psychology," on which Prof. William James, of Harvard University, has been engaged for many years, and which is expected to give the most complete study yet made of that science, will be ready for publication in the early part of 1891.

AN epidemic of typhoid fever is raging in Clementville, Ohio. There have been eighty-nine cases, twenty-five of which have proved fatal. At present forty persons are suffering. Business has been suspended. The place has a population of two hundred.

THE Southern Surgical and Gynecological Association, in session at Atlanta, elected the following officers for 1891: President, Dr. L. S. McMurtry, of Louisville, Ky.; Vice-Presidents, W. Gastohe, Atlanta; Dr. J. T. Wilson, of Sherman, Texas. The terms of Dr. W. E. Davis, of Birmingham, Ala., as Secretary, and J. H. Cochrane, of Birmingham, as Treasurer, were continued. The only change in the Judicial Council was the substitution of Dr. George J. Engelman, of St. Louis, for Dr. Bedford Brown, of Alexandria, Va., whose term expired.

DEATHS last week numbered three hundred and sixty-seven, an increase of nineteen over the previous week, and three less than during the corresponding period last year. The principal causes were: Apoplexy, 13; Bright's disease, 7; cancer, 10; casualties, 9; congestion of the lungs, 6; consumption of the lungs, 53; convulsions, 13; croup, 12; cyanosis, 5; debility, 7; diphtheria, 21; disease of the heart, 30, scarlet fever, 5; typhoid fever, 12; inflammation of the brain, 9; inflammation of the bronchi, 8; inflammation of the kidneys, 5; inflammation of the lungs, 38: inflammation of the peritoneum, 6; inflammation of the stomach and bowels, 8; inanition, 6; marasmus, 10; old age, 10; paralysis, 6.

THE Board of Health of Philadelphia has recently made the following important changes in the rules regulating interments:

Rule 242. (a.) No interment of the dead body of any human being, or disposition thereof in any tomb, vault or cemetery, nor the removal of any body from the city for interment elsewhere, shall be allowed, without a permit therefor be granted by the Board of Health upon presentation of the certificate of death; and no sexton, superintendent, or other person shall assist in, or assent to, or allow any such interment, or aid or assist about preparing any grave or place of deposit for any such body for which such permit has not been given authorizing the same. Every cer-

tificate of death must be signed either by a physician, the coroner, or health officer, to which must be appended the certificate of the undertaker.

Rule 242. (k.) No body of a person who has died of any of the following diseases, viz.: Asiatic cholera, yellow fever, cerebro-spinal meningitis or spotted fever, small-pox or varioloid, diphtheria, relapsing fever, typhus or ship fever, and scarlet fever, shall be placed in an ice-box, or be removed from the city of Philadelphia, except for the purpose of interment in the adjacent rural districts, and such removal shall not be made by public conveyance, and in all such cases the body shall immediately after death be completely enveloped (and remain so enveloped) in a sheet saturated with a four per cent. solution of chloride of lime, or a five per cent. solution of pure carbolic acid, or a one-tenth per cent. (1 : 1000) solution of corrosive sublimate, and be encased in a coffin or casket, the entire inner surface of which shall be thoroughly and completely lined with a layer of raw cotton of a thickness of not less than one inch; and said coffin or casket shall be tightly closed with screws, and remain so closed; or the body, wrapped as above, shall be encased in a coffin or casket of metal, with all joints and seams closely soldered. Burial to take place within thirty-six (36) hours.

A STRANGE experiment is in progress at the Charity Hospital, on Blackwell's Island. Dr. Phelps, of the University Medical College, assisted by other physicians, is trying to graft upon the deformed leg of Johnny Gethins, a fourteen-year-old boy, the leg of a spaniel dog. Boy and dog are bound together, and the dog is incased in a plaster cast, so he cannot move. The surgeons think they can make the strange graft and give young Gethins a sound leg, so that he can throw away his crutches, or, rather, transfer them to his dog.

AN EXAMINATION ECHO.—A medical student was undergoing an examination.

"How would you make a patient transpire?" demanded the professor.

"I should employ sudorifics, such as tea, coffee, and other aromatic warm drinks."

"But suppose these should not produce the desired effect?" queried the professor.

"Well, in that case," said the student, "I should use the volatile oils, such as ether and the various compounds of alcohol."

"But suppose these should not answer your purpose?" asked the professor.

"I should use triturated antimony, James' powder, or Dover's powder," replied the student.

"But if all these means failed?" remarked the professor.

The student was sweating great drops.

"I should take sarasparilla, bitter sweet, or saffron, jaborandi."

"And if even all of these did not act, what then?" queried the profesor.

"Then I would sned the patient to you to undergo a medical examination," sighed the student.

TO CONTRIBUTORS AND CORRSEPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

PATENTS, ETC., granted on medical subjects issued November 11, 1890:—

Dental engine	W. A. Bonwill	Philadelphia, Pa.
Inhaler	H. M Brittain	Martins Creek, Pa.
Catarrh remedy	W Bradley	St Louis, Mo.
Preservative	Benussi & Dendero	San Francisco, Cal.
Preserving foods	C. L. Bachelorie	Paris, France.
Recovering soda	L. D Armstrong	Lock Haven, Pa.
Drying starch refuse, etc	P H Grimm	Glen Cove, N. Y.
Teeth separator	F. Sawhill	Hastings, Neb.

TRADE-MARKS.

Complex-powder. (The word "Camellia," the representation of a lady's head, an arrangement of camellia flowers in the hair, and a spray of flowers above the word "Camellia")	J. T. Grenamier	Chicago, Ill.
Facial soap and powder. (The word "Kom-Plex-Yon.")	Van Dyk M'f'g Co	Rutherford, N. J, and New York, N. Y.
Line of remedies classified upon a temperemental standard. (The representation of a series of united faces or masks.)	Occidental Chemical Co	Nashville, Tenn., and Dallas, Tex.
Remedy for headache, neuralgia, rheumatism, and analogous diseases (The Word "Antikamnia.")	Antikamnia Chemical Co	St. Louis, Mo., and St. Louis, Ill.
Proprietory medicines, ointments and lotions. (The portrait of Madame E. G. C. Rozzelle	E. G. C. Rozzelle	Syracuse, N. Y.

LABELS.

"Homer's Egg-Shape Suppository Mould"	J. Homer	Newburyport, Mass.
"Dr. Rush's Medicated Skin powder"	E. F. Rush	Chicago, Ill.
"Draper's Improved Persian Cream"	W. P. Draper	Springfield, Mass.
"Kennedy's Blood Medicine"	D. S. Kennedy,	Towanda, Pa.
"Thompson's Wild Cherry Phosphate"	A. G. Thompson	Chicago, Ill.
"A Remedial Lotion"	J. P. Greth	New Bedford, Mass.
"Hop alsam" (for a cough medicine)	A. D. Rice & Sons	Portville, N. Y.

CHARLES J. GOOCH, *Patent Attorney.*

LOCK BOX 76, WASHINGTON, D. C.

Army, Navy and Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from November 4, 1890, to November 10, 1890.

By direction of the Secretary of War, Colonel Basile Morris, Surgeon, and Major George M. Sternberg, Surgeon, are appointed members of a board of officers appointed to meet, at the call of the senior officer thereof, in San Francisco, California, to examine such officers of the Corps of Engineers, as may be ordered before it, with a view of determining their fitness for promotion, as contemplated by the Act of Congress, approved October 1, 1890. Par. 5, S. O. 261, A. G. O., Washington, D. C., November 7, 1890.

By direction of the Secretary of War, Lieutenant-Colonel Charles T. Alexander, Surgeon, and Major Johnson V. D. Middleton, Surgeon, are appointed members of a board of officers, appointed to meet at the call of the senior officer there at the rooms of the Board of Engineers, Army Building, New York City, to examine such officers of the Corps of Engineers, as may be ordered before it, with a view to determining their fitness for promotion, as contemplated by the Act of Congress, approved October 1, 1890. Par 4, S. O. 261, A. G. O., Washington, D. C., November 7, 1890.

By direction of the Acting Secretary of War, leave of absence for four days is granted Captain William D. Crosby, Assistant-Surgeon, U. S. Army. Par 2, S. O. 259, A. G. O., Washington, D. C., November 5, 1890.

Captain Louis A. LaGande, Assistant-Surgeon U. S. Army, detailed as member of board for duty in connection with the World's Columbian Exposition, and will report by letter to Major Clifton Comly, Ordinance Department, member of the board of control and management of the Government exhibit to represent the War Department. Par. 1, S. O. 260, A. G. O., Washington, D. C., November 6, 1890.

Leave of absence for one month is granted Lieutenant-Colonel Dallas Bache, Surgeon U. S. A., Medical Director, Department of the Platte. Par. 6, S. O. 82, Dept. Platte, Omaha, Neb., November 1, 1890.

The Times and Register.

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PAGE

CLINICAL LECTURE.

INTRODUCTORY LECTURE UPON OBSTETRICS. By Jesse Hawes, M.D., Greeley, Col. 497

ORIGINAL ARTICLES.

PLACENTA PRÆVIA, WITH NOTES OF CASES, By A. F. Myers, M.D., Blooming Glen, Pa. 501

TRIPLE NARCOTIC ADDICTION. By J. B. Mattison, M.D. - - - - - - - - - - - 504

"THE PROGNOSIS OF PRESSURE PARALYSIS." By T. Halstead Myers, M.D. - - - 505

THE WEST INDIES AS A SANITARIUM. By William F. Hutchinson, M.D. - - - - - 506

THE POLYCLINIC.

Potassium Iodide. *Wolf* - - - - - - - 508
Pomade for Prurigo. *Kaposi* - - - - - - 508
Probe in the Lachrymal Duct - - - - - - 508
Occlusion of the Lachrymal Duct. *Keyser* - 508
Receipts for Toilet Preparations. *Drake* - 508
For Leuchorrhœa. *Presse Med., Belg.* - - 508

EDITORIALS.

TREATMENT OF SYPHILIS BY SUBCUTANEOUS INJECTIONS OF CALOMEL - - - - 509

ANNOTATIONS.

Pleasure and Pain - - - - - - - - - - 510

PAGE

Hunger and Susceptibility to Infection - - 510
Coinage and Infection - - - - - - - - - 510
Mission Work of the Philadelphia Board of Health - - - - - - - - - - - - - 510
Reproduction of Bacteria - - - - - - - 511
The American Physique - - - - - - - - 511

LETTERS TO THE EDITOR.

Electricity in Medicine. *Hutchinson* - - - 511

BOOK NOTICES.

Memorial Sketches of Doctor Moses Gunn, by his Wife - - - - - - - - - - - 512
The Practical Application of Electricity in Medicine and Surgery. *St. Clair* - - - - 512

THE MEDICAL DIGEST.

FRENCH NOTES. *Roussel* - - - - - - - 512
The Use of the Bromides on Chronic Metritis. *Chéron* - - - - - - - - - - 512
Use of the Bromides and the Iodides by Means of Enema. *Kobner* - - - - - 513
A New Treatment of Habitual Constipation. *Flatau* - - - - - - - - - - - 513
Two Hundred and Seventy-two Cases of Albuminuria. *Goodhart* - - - - - - 513
New Reagent for Albumen. *Pharm. Centralbl.* - - - - - - - - - - - - - 513

PAGE

Application for Angina. *Rousseau* - - - 513
Antiseptic Tincture for Diphtheria. *Osiecki* - - - - - - - - - - - - - - 513
Application for Burns of the First and Second Degrees. *Jour. de Méd.* - - - - 513
Pyoktanin Again. *Kubli* - - - - - - - 513
Why Electricity Fails. *Prince* - - - - - 513
Prevention of "Black Eyes." *British Med. Jour.* - - - - - - - - - - - - - 513
For Gastric Catarrh - - - - - - - - - - 514
Ointment for Fissure of the Anus. *L'Union Médicale* - - - - - - - - - - - - 514
Treatment of Gonorrhœal Arthritis. *Journal of Pharmacy* - - - - - - - - - - 514
An Operation for Prominent Ears. *Ely* - - 514
Death under Chloroform. *Lancet* - - - 514
Massage in Headache. *Norström* - - - - 514
The Test of Death. *Richardson* - - - - - 514
The Therapeutic Value of Climate. *Gundrum* - - - - - - - - - - - - - - - 514
Biniodide of Mercury. *Illingsworth* - - - 515

MEDICAL NEWS AND MISCELLANY, 515

ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - - - 515

NOTES AND ITEMS - - - - - - - - iv, xi

Clinical Lecture.

INTRODUCTORY LECTURE UPON OBSTETRICS.

BY JESSE HAWES, M.D.,
GREELEY, COL.,
Lecturer upon Obstetrics, University of Denver.

GENTLEMEN: Only one parturient woman in twenty will urgently need your skilful aid; but the remaining nineteen will give you, for your intelligent council, for your words of cheer and sensible sympathy, and for your minor aids a wealth of gratitude and affection; yea, of substantial pecuniary reward, such as will not be given you by any other class of patients for any like amount of professional work. The truth of the first statement you will learn from the carefully-kept records of the great obstetric hospitals of Europe and America. The other truth you will learn from your own sweetly-treasured memories of the past, as in the future years you recall the lessons of your busy professional lives. To you, as general practitioners, the field of obstetrics will be one of deep interest. I desire, in this introductory lecture, to briefly scan the subject of obstetrics from the standpoint of the historian, and, to a slight extent, from the standpoint of the analyst. Let us look back from the commanding point furnished by these last years of the nineteenth century—these years of many books and much research; let us note the customs of primitive people in their obstetric procedure; let us watch the progress that centuries have brought, and, if we are attentive observers, we shall more highly appreciate the exalted position which this science has honestly earned.

The history of obstetrics may properly be divided into two periods—the primitive period and the scientific period. The primitive period extends from prehistoric times down to the year 1550, and, fortunately for our study, illustrations of primitive practices may be observed to-day among the primitive people of both hemispheres. The scientific period is measured only by the last three hundred and fifty years.

In the first period, the practice of obstetrics was empyrical, not based on anatomical and physiological knowledge; largely governed by intuition—often controlled by religious dicta; but slightly influenced by scientific reasons—though many of the practices taught by instinct are in accord with reason. The beginning of the second period dates from 1550, because at that time podalic version—*i. e.*, the changing of some less favorable presentation to a foot presentation—was re-discovered, and never again lost to sight. Podalic version had been discovered, taught, and practiced, more than one thousand years before, but for several hundred years had completely disappeared from the knowledge of obstetric practitioners. For more than one thousand years previous to 1550, no essential progress had been made in obstetrics, while many and valuable improvements appeared shortly after.

In the study of the first period, we are indebted to ethnological research, for this has aided greatly to lift the veil of mystery and cast the light of explanation upon the scanty records of the distant past. The customs of primitive people to-day, when removed from all contact with civilization, reflect the practices of the primitive people of all times, even back to the early morning of humanity. In the study of the second period we begin by delving among the musty tomes of the sixteenth century—hunt through the medical museums of Europe and America, reading the obsolete works treasured as curiosities in the great libraries of the world, diligently perusing the scattered current literature of the past two centuries, scanning the thoughts of the investigators, leaders, and teachers of our profession as they grow clearer and brighter, until we stand in the great light of the present day, intensely expectant of the still greater

boons our science shall give to the daughters of Eve who shall be the mothers of the twentieth century.

First, let us consider the primitive mothers of the human race. (So little space is given to this phase of obstetrics in standard works, that I trust it may interest you if I devote much of the present hour to it.) The condition of parturient women among these simple people was by no means as cheerless as might at first thought appear; they were pleased at the prospect of maternity; it was one of the few eventful periods of their uneventful lives; they became objects of more importance and solicitous interest to the leaders of their tribes. Sarah, the wife of Abraham, laughed when assured that she should be blessed with a son; so many years of sterility had become a mortification to her. Isaac, for himself and his wife, entreated the Lord that Rebekah should not be barren. Rachel cried out in agony, "Give me children or I die!" Moses told the children of Israel that they should be blessed above all people, and the first blessing he mentioned was that "there shall not be male nor female barren among you." The same spirit is apparent among the artless and unaffected primitive people of to-day. The Andamanese wives are extremely proud of their condition when "coming events cast their [substantial] shadows before." In their native state this is, of course, very evident to any beholder, and if a stranger shows himself in one of their villages, the envied wives hasten to pass before his tent, dressed in their summer costume of a parasol, wearing a modest fig-leaf and a smile. They are envied by their sisters; they know it; they delight in it, and in its cause. Not only do primitive people in this condition feel themselves of more than passing interest to their tribes, but they believe that good and evil spirits are following their tracks as closely as previous engagements will permit. Among some of the Finnish tribes females *enceinte* change their shoes weekly. This is done to throw the pursuing evil spirits off the scent, to mislead them, as they are supposed to follow for the purpose of seizing the newborn child. Up to the present time they flatter themselves that they have always outwitted the spirits of evil—there is much mischievous pleasure in this.

The respect entertained for the mother of children, is not confined to the people of humble surroundings. Madam De Stael asked the Great Napoleon, who, in his opinion, was the first woman of France, "She who is mother of the most children" was his answer. The student of the history of that time will see more in the reply of the Emperor than appears on its surface. Labor was and is, among primitive races, more often normal than among their more enlightened sisters; there were fewer cases of deformity of the pelvis among them.

Deformity of the pelvis is a product largely of crowded rooms, vitiated atmosphere, and poor living. With less crowding, there was also less danger from infection. Secluded from other races by their imperfect means of travel, women in primitive times maintained a purity of type that was favorable to normal labor. The amalgamation of races produces a disproportion between fœtal and maternal parts. The head of the mulatto child is relatively large for the negro mother. They had less of worry than their sex in civilization—they knew nothing of the advantages of scientific obstetrics; hence, ignorance to them was bliss. Much of the gloom of this world, gentlemen, comes from coveting the better conditions enjoyed by others.

We can readily account for the rapid and easy delivery of savage women who live in a natural state, and the rarity of accidents from these facts: They marry only their kind, and thus the proportions of the child are suited to the parts of the mother; their out-door lives give healthy conditions and vigorous frames, and the activity of their lives was favorable to head or breach presentations. Primitive people have nearly always held the child largely responsible as to the time at which labor should occur; they believed it selected its own position in the uterus, and left its first home only when it chose to do so.

The more ignorant Chinese believe that pregnancy can last two or three years, because the child does not wish to leave the womb; they place stress upon the voluntary actions of the child. In a legal Mussulman treatise it is stated that the maximum of gestation may attain four or five years. M. Corre tells us that even in France the time is not long passed when the voluntary motions of the fœtus, and when the cause of labor pains and expulsion of the child was looked for in the desire of the fœtus to change its condition of life. It is quite a source of complacency to the savage parturient that the fœtus must assume his full share of responsibility. Among the Pah Utes they endeavor to make the journey of the little stranger to his extra-uterine home easy and expeditious, with the least possible pain to the mother. They consider the sojourn of the offspring *in utero* as a voluntary matter, and after a given length of time, say nine moons, the child is to be starved out of its maternal quarters, as a wood-chuck is forced from its hiding place; hence, for weeks before the expected event a partial fast begins with the mother, which becomes almost absolute as the time approaches, so that by the end of the allotted period of gestation the fœtus will not only be ready, but anxious to come to the world in order to reach the supply of milk which the mother has now in waiting for the child starved in the womb.

When we study the custom of savage races at the confinement, we find a wide range of usages. In the Sandwich Islands the confinement is witnessed by all who happen to be about; this is not objectionable to the patient. The same lack of privacy prevails among the Mohammedans of India. They prize the occasion as an opportunity for display that must not be neglected. Yet, with all these facts in her favor, the primitive woman, about to become a mother for the first or twentieth time, does not always find her path strewn with roses, nor her couch a flowery bed of ease.

In Ceram, an island north of Australia, they tie the patient to a tree or post, with her hands above her head, and she is not released until the child is born, or the spirit has left the body of the mother.

Dr. Choquette says, that two or three years ago an Indian party of Flat Heads and Kootenais, men, women, and children, set out for a hunting trip. On a severely cold winter's day, one of the women, allowing the party to proceed, dismounted from her horse, spread an old buffalo robe upon the snow, and gave birth to a child, which was immediately followed by the placenta. Having attended to everything as well as circumstances permitted, she wrapped the young pappoose in a blanket, mounted her horse, and overtook the party before they had noticed her absence. Not a very agreeable experience. When, among these people labor was unduly prolonged, their prospect for the immediate future was not joyous. The Mexican parturient woman seizes a rope tied to the beam or rafter, while her friends encircle her abdomen with their arms, and with each pain

drag downward, with the weight of one, and sometimes two or more persons. In some Indian tribes a male assistant stands a-straddle of the patient, over her buttocks, his hands clasped around her waist; during each pain he pulls upwards, thus making pressure on the abdomen. The Modocs are always delivered in this position. Among the Brule Sioux, during the expulsion of the fœtus, the squaw stands erect, with her arms about the neck of a stout male supporter; the strong, young, unmarried bucks are most frequently chosen for this service.

The Sclavonians, who are not unlike some of our Indians, endeavor to shake the child out of the womb in cases of prolonged labor. A physician of Pueblo, Colorado, informs us that the lower orders of Spanish women always take the kneeling position, and if the placenta is tardy they always drink a cupful of soapsuds, which produces vomiting, followed by the immediate expulsion of the afterbirth.

In Kabylie, if the labor is slow, an assistant butts the patient in the abdomen with his head. This is esteemed among them much as civilized races regard a consultation of three solemn doctors. In New Caledonia, they use violent pressure and blows of the fist upon the abdomen, in hard labor. Among the negroes of New Guinea, when labor is much prolonged, the friends of the woman cheer her by beating or kicking her in the stomach. In Senegal, practice is less heroic; some one sits upon the patient's abdomen. The Loangos even tramp upon the abdomen as one of the last resorts. In severe labors, the Kalmucks procure a number of men, provided with guns, place them in hiding near the bed of the patient; as soon as the midwife perceives the head distending the perineum she signals the men who fire simultaneously, thinking to assist nature by the sudden fright which the noise must cause. Dr. Forwood narrates a similar practice among the Comanches; a woman who experienced a very difficult labor was brought out on the plains, and a noted warrior, mounted on his fleetest steed, with all his war paint and equipments on, charged down on her at full speed, turning aside only at the last moment when she expected to be pierced through the body and trampled under foot. This terrible ordeal is said to have been followed by the immediate expulsion of the child. The Baschkirs rely upon their "devil seer," who discovers the presence of the evil spirit and drives him away, if rewarded by the present of a sum of money or a fat sheep. These honestly credulous people have a faith as strong and abiding in a good devil seer as the faithful Christian scientist has in the power of Mrs. Eddy.

Among others a priest is called who hastily mumbles a few verses of the Koran, spits into the patient's face, and leaves the rest to nature. . . . The Crow Indians, of Montana, give their squaws a villainous drink made from a wild tobacco plant, In ancient Mexico, if the pains were too severe, the patient was given a small piece of the tail of an opossum, carefully rubbed down in water, and the following prescription is on record as having been given by the court physician in Siam to a lady of high rank at the time of her confinement: "Rub together shavings of sapon wood, rhinoceros' blood, tiger's milk, and the cast off skins of spiders." Notwithstanding all these remarkable aids, some labors will not terminate; a presenting shoulder, or some malformation of the mother or child prevents all progress. The child is charged with the fault, and the mother is made co-defendent for being the mother of such an infamous character, who would probably bring nothing but evil to his people and tribe. This is philosophical; when death comes to mother and child, this view of the case relieves relatives from the discomfort of mourning their loss. Why should they mourn over the death of such a villainous character? they believe he could easily have escaped from the uterus if he had not voluntarily placed himself in a malposition. A large per cent. of primitive people take this comfortable view of such cases.

. . . . . .

After the birth of the child, what was the experience of the primitive woman?

It is safe to reply that the evil genius of superstition and ignorance was, not always, but too often, her guardian. Wild and rude races have always sought their habitations near lakes or the waters of a running stream. Among many tribes the confinement of the female occurs upon some secluded bank of this stream. As soon as the patient has been delivered of her offspring she plunges into the clear water; often with her infant in her arms, and carefully bathing her body, cleanses herself from the impurities incident to the occasion; a very common sense method of securing asepsis to these hardy individuals Among our Sioux tribes the squaw belt is almost universally applied as soon as labor is completed. This is a belt of leather, four inches wide, and furnished with four buckles. Its object, among the Sioux, is to gather in the redundant tissues of the abdomen, squeeze the emptied uterus, assist in expelling the placenta, and prevent excessive loss of blood by its compression. Among the Apaches, it is deemed very essential that, as soon as the placenta is expelled, the woman should be kept on her feet, walking about for half an hour or more, so as to favor a free discharge of all blood and prevent its coagulation in the womb. The same custom is observed among the Dakotas, the Flat Heads, and other Indians of the Pacific coast.

. . . . . .

The Kiowas, Comanches, and Wichitas use a broad bandage of buckskin, similar to that of their neighbors, the Sioux. This is worn for about a month.

In this connection, it is proper to state, that among some wild people custom demands that a merited punishment should be visited upon the husband as the cause of so much suffering. Among the land Dayokas of Borneo, the husband is always treated badly after the birth of the child. He is given only rice and salt to eat, and is denied enough water to quench his thirst, and for several days is forbidden to bathe, or show his face out of doors. Among some of our Indian tribes, the father, after calling his relations and friends together, and having a feast of boiled dog and other Indian delicacies spread for them, goes off and hides himself until the child is a week old.

This practice, however, is only observed by the young men; these are so ashamed of their part in the affair that they go to some sympathetic friend, and stay until they can summon sufficient courage to come back; then the wife presents the child for the first time to its father. I need not inform those gentlemen who have lived among them that the old Indian is never ashamed of anything.

In Old Calabar, the husband is clothed like a woman, put to bed, and sighs terribly, as if he were enduring great suffering. A similar custom formerly existed in Greenland, and still prevails in Guiana, among certain Canadian tribes and the Caribbeans: while the woman who has been delivered attends to her household duties, her husband goes to bed, and receives in her place the visits of condolence from friends and relatives. This peculiar comedy is as

likely to be due to laziness on the part of the "buck" as to the purpose (alleged by some) of causing the woman to forget her trouble, and give her an innocent revenge for the suffering which she alone has supported in the work of reproduction.

The influence of religious beliefs shows itself in the customs and teachings of many primitive people. In ancient Athens, it was sacrilegious for a woman who had not born children to be a midwife; and she must have passed the menopause. In passing, we may mention that among the ancient Greeks, men were not prohibited from performing the part of midwives, but such men were called mæutai (man grandmothers). There are man-grandmothers (old grannies) practicing obstetrics in America to-day.

The mythology of the Romans is rich in gods and goddesses who presided over particular phases of labor. Juno and Diana Lucina presided over labor in a general sort of way; they were consulted as the deities of general practice; they made no pretensions as specialists. Virgil sings to us of Prorsa, who was an assistant to Lucina, and was called upon in cephalic presentations. The goddess Mena made a specialty of the monthly flow and lochia. Then there were goddesses for post-puerperal women; goddesses for the infant in the cradle; goddesses for the infant in the act of nursing; goddesses for the development of the body. The influence of all these specialists upon the practice of obstetrics is apparent as we study the history of the subject. Gods or goddesses, genii or ghosts, spirits, elves, fairies, brownies —left their impress upon the customs of the primeval people of every clime. The subject is interesting and curious, but it is too broad for us to compass.

At length, as man became more enlightened, a knowledge of instruments that might be of use in assisting the mother to terminate her labor, is apparent; hooks, knives, fillets, perforators. Later, a crude knowledge of anatomy appears, but the professional lore which was the property of Greece, and afterward of Rome and her dependencies, was buried in the monasteries when Rome, rendered effeminate by her wealth, luxury and vices, staggered and fell under the blows of her barbarian assailants.

For nearly ten centuries the years are known in history as the dark ages.

Sight began to dawn in Western Europe in the thirteenth century; one body, in five years, was allowed and ordered for dissection in the University of Salerno.

In the fourteenth century the study of anatomy was permitted at Montpelier, and at the Universities of Prague, Vienna, and Tubingen in the fifteenth century.

But the practice of obstetrics profited but little from the knowledge thus gained; the knowledge of anatomy was monopolized for surgery. Obstetrics was almost wholly in the hands of ignorant midwives; the surgeon was only called in to cut away the fœtus.

Law and public sentiment decreed that women in ordinary labor should be attended only by women.

Dr. Wertt, of Hamburg, determined, in 1520, to study the phases of natural labor. He clothed himself in woman's garb, and made his way to the lying-in room; he was detected, and burned alive for his profane temerity.

A hundred years after, not far from the time when America was settled by the English, Dr. Willugby, to assist his daughter, who was a midwife, was obliged, by the popular prejudice against men as obstetricians, to crawl on his hands and knees into a dark room to aid a suffering patient.

These illustrations of the statics of obstetrics, you will note, are located in Germany and England. France, the birthplace of scientific obstetrics, was, for nearly two centuries, in advance of other civilized countries.

During the remainder of our hour we shall briefly scan the second period—the period of scientific obstetrics.

The most striking feature of this period is the effort to preserve fœtal life.

Podalic version was re-discovered, by Ambrose Pare, in 1550. Stop a moment, and note what version implies.

Among the Arabians, in their best obstetric days, if an arm presented, they simply cut off enough to permit the head of the child to be drawn down to take the place of the amputated arm. This meant almost certain death to the child, and often, on account of the rude instruments used, death to the mother.

In Europe, if a leg presented, haste was made to push it back, and the woman was tossed in all ways, her head downward, to see if perchance the head of the child might not take the place of the leg. This failing—amputate the leg (Rhodian). Result—death to child, certain; to mother, probable.

Hippocrates, nearly two thousand years before, taught that the child could not be born otherwise than head first; aud his teachings were still respectable authority.

Podalic version meant saving the life of the child, where heretofore it had been lost; it also meant saving the lives of many mothers.

The next important advance was the discovery of forceps in 1647, a hundred years after the discovery of podalic version.

The forceps were the legitimate succors of the hooks; they were not, however, the lineal decendants of the hooks. The hooks meant death to the child; if not dead before their application, he died shortly after.

The forceps were a notable example of the life-preserving characteristic of the second or scientific period. I need not enter into a history of the forceps; simply to note their great value over any instrument that had preceded them is sufficient for this occasion. The first forceps were straight; they did not conform to the curve of the pelvis; they were of value when the head of the child was well down in the pelvis; they were dangerous when the head was high. The lives of many children, the lives of many mothers, could be saved if the forceps could be so moderated in form as to admit of their being passed through the superior strait. It was a hundred years after the discovery of the straight forceps before the pelvic curve was added. This modification of the form of the forceps was a great boon to humanity.

Until 1550 there had been no accurate description of the normal pelvis; and for nearly two hundred and fifty years there was but little profitable study given to the physiology of obstetrics. From 1800 to nearly 1850 was marked by the great advance in this direction. Three years before 1850 chloroform was discovered. There has never been a discovery that can do so much to diminish the pain of woman in the sharp agony of labor. I have administered chloroform in hundreds of cases. Properly administered, I believe it one of the least harmful of medicinal agents. I cannot name a half dozen of those who have experienced its blessings who would willingly pass through a subsequent labor without it. "What, doctor; am I all through? Is my baby born, and I

did not know it? I suffered nothing; I have slept sweetly all the time." How many, many times has this salutation come to me from a heart full of gratitude!

Never until your own dear ones are sufferers, and never until you have learned to properly administer chloroform, and learned how harmless it is in obstetric practice, can you appreciate a tithe of its great value!

Chloroform, not ether, is the obstetric anæsthetic. Properly administered and properly supplemented, I believe it is in labor one of the least harmful and one of the most beneficient of all of a good God's gifts. Ergot, as an oxytoxic, was not used until the beginning of this century. It has saved many lives. Learn to use it properly; it belongs to the age of scientific obstetrics.

There is a method of version designated as the Hicks method, in honor of the eminent English obstetrician, Braxton Hicks. In a moderate percentage of cases it can be utilized; it is, for the mother, a conservative procedure; it is a method, the discovery and perfection of which, should immortalize the discoverer. By this method it is possible to perform version without introducing the arm or hand into the uterus. Dr. Hicks published his paper upon the procedure in 1860; and the world has honored his name and the method by associating both together. The same method was proposed six years before by an American physician, Dr. Wright, of Cincinnati. Dr. Wright's article was honored by the gold medal of the American Medical Association. The same method was also taught in 1807 by Wigand, of Ham burg, and then completely forgotten. For their own fame the two last named gentlemen published the method too early—the world was not ready to appreciate their genius; but the discovery made, independently as it was, is an ornament to the scientific period of obstetrics.

It is only within the last fifty years that the profession has fully recognized the infectious nature of child-bed fever; the knowledge has preserved the lives of thousands of mothers. The use of viburnum prunifolium as a preventive of abortions has saved thousands of lives; its blessings have been given to the world within the last fifteen years. Cæsarian section has been practiced, perhaps, from prehistoric times. Through all the ages it has been to the mother a dangerous, almost necessarily a fatal last resort.

It was a measure proposed largely for the child, much less for the mother. The antiseptic methods of this wonderful scientific period have performed modern miracles. A miracle performed nineteen centuries ago, called the dead from the grave; the modern miracle of Cæsarian section skilfully performed, properly supplemented, saves nineteen out of twenty from entering the grave through parturition. According to the latest statistics Cæsarian section performed by skilful operators gives a mortality of only five per cent.

The leaders in our branch of medicine and their great achievements are myriad; we, at this time, cannot even name them, but the men and their wonderful works are known to progressive and studious members, young aud old, of our profession, their influence is felt, their teachings are practiced, in the smallest hamlets of the civilized world; better obstetric service may often be obtained in the wildest mining mountain town of Colorado to-day than could be expected in the great hospitals of Europe fifty years ago. We are to-day in the midst of a most brilliant era; one pregnant with great promises for the future. Another thought, more important to each of you personally than any we have dwelt upon. To you, the unassuming students of to-day, the future will be, must be, committed. The students of to-day must inherit the future; there are no other heirs. Fortunate is he, who early in his professional life, recognizes the certainty of his inheritance and its majesty. Your responsibilities will be great; your opportunities will be great; let your achievements be great.

The habit of industry; the habit of study; the habit of conscientious professional work; all these, acquired early and maintained through your professional lives, will make you the great physicians of the great future.

Original Articles.

PLACENTA PRÆVIA, WITH NOTES OF CASES.[1]

By A. F. MYERS, M.D.,
BLOOMING GLEN, PA.

GENTLEMEN:—I have nothing new to bring you; no particular doctrine to expound, nor favorite theory to advocate. You are all familiar with the perplexity of the subject and its high rate of mortality in whatever method of treatment employed. I endeavored not to be too radical in my procedure, nor did I wish to follow the expectant mode of treatment; the happy mean was my design, and how I succeeded is for you to judge. I invite your attention to the following cases, as I noted them at the time.

CASE I. Mrs. D., aged thirty-six, multipara; sixth confinement; in her ninth month of pregnancy. Our worthy member, the late Dr. D. P. Moyer, was called December 21, 1886, at 6 A. M., and found the patient in labor, having shortly before, as she stated, passed a half chamber full of blood. The doctor made a careful examination.

Diagnosis—Placenta prævia.

With implicit directions to remain quiet, he left the patient, and came to my office and requested me to take charge of the case. In one hour after he left the patient I saw her. I found the patient greatly alarmed from the loss of blood sustained. She was weak, with anemic countenance, but pulse rate normal; no labor pains. The history of the patient was that all former labors were natural; general good health; that she had had a number of slight hemorrhages at different periods for a month or more, but of no great quantity. Little attention was paid to the matter, assuming it to be merely incidental to her condition at this time. The patient felt the movements of the child. Carefully auscultating the abdomen, the fœtal heart sounds were not very distinct, yet audible. Digital examination revealed a long, soft, flabby cervix, sufficiently dilated to admit the index finger to ascertain the true condition of affairs. The placenta was implanted near the internal os uteri, and could be easily distinguished. I could fully confirm Dr. Moyer's diagnosis. My examination dislodged several clots of blood in the lower segment of the uterus, and a profuse loss of blood followed. I had all the pillows removed, and head lowered to a level with the nates. Stimulants, such

[1] Read at the annual meeting of the Bucks County Medical Society at Doylestown Pa., November 5, 1890.

as whiskey and ammonia, were regularly administered from this time on with good results. I did not risk to leave the patient, but remained in constant attendance, noting every advance. In my estimation her anemic condition would admit of no delay, so I decided upon three things—tamponing, dilatation, and delivery as soon as the condition of the os would admit. I proceeded to plug the cervix with tampons made of pledgets of cotton and pieces of muslin, saturated with vinegar, for the want of something better, with a view of checking the hemorrhage and to assist in dilating. In about three hours this hastily improvised tampon came away. I replaced a similar one, which remained some time. At 2 P. M. this was again dislodged, and more blood was lost. The os was now dilated to the size of a dollar. At regular intervals I emptied the bladder by means of a catheter, so as to avoid placing the patient on a vessel, and possibly disturbing the packing. If I had possessed a good rubber dilator I would have used it at this time. Again plugging the os and packing the vagina more completely, which remained for three hours, when slight labor pains became manifest. At this point I suggested the use of an anæsthetic and assistance, but to this plan the friends demurred. They did not wish the child to be deprived of a chance of living, and as long as it was living I should not sacrifice it unless there was no other alternative to insure the safety of the mother. At 7 P. M. the flow again became more serious, the pains increasing in severity, and the os dilated to possibly three-fourths, and now more rigid. Bleeding occurred at intervals, and my tampons were of no avail. An attack of syncope came on, but the patient soon revived. I determined to accelerate labor at all hazards, and, accordingly, I passed my right hand carefully into the vagina, completely plugging the orifice, and in this manner I greatly assisted nature with my fingers at dilating the rigid os. I felt the placental mass all about the mouth of the womb, as far as I could reach then, and concluded I had a placenta prævia centralis to deal with. I tried to make an opening through the mass with my fingers, but failed after working at it for a quarter of an hour. Placing my left hand upon the abdomen, I steadied the uterus, pressing it down and gently forcing a little at dilation, I got my entire hand within the womb in endeavoring to detach the greater portion of the placenta. I gained another point; I, however, could barely reach its margin on the mother's left side, but, hooking it with my fingers, I crowded it to the right side. During this procedure another alarming syncope took place. I increased the stimulants, and in a few minutes the patient revived. The os was now sufficiently dilated, and, pressing the fœtus down upon the superior strait as much as possible, and with my fingers pressing the amniotic sac against the presenting object, I ruptured the membranes in this manner. I could now for the first time determine the presentation, and found the breech entering the superior strait. The patient being greatly exhausted, and by her request to desist, I made no attempt at bringing down the feet. Bleeding was now almost stopped. Pains became more regular, but of short duration. At 10 P. M. I was unable to hear the fœtal heart sounds, nor had the mother felt any movements for the last hour. Nature seemed unable to perform her task, and, the patient being so exhausted, I again assisted. The breech being now fully engaged, and taking one of the blades of my forceps, I passed the handle up and hooked it back of a leg. Suspecting the non-viability of the child after another careful examination, I used considerable strength in making traction. The breech was born in a few minutes, but both arms were extended up at the sides of the head, wedging it completely in the bony cavity. They were brought down with some difficulty and more loss of blood, but the head soon followed, and a dead female child was ushered into this world just as the midnight hour passed by. The cord was loosely lapped about its neck; the placenta soon followed without any assistance, and hemorrhages ceased. No laceration of parts occurred. Examining the placenta I found that I had almost penetrated the mass a half inch from its centre. The patient made a slow but complete recovery.

This case is one of frequent occurrence. Is is of a class that is often difficult to decide what course to pursue to reasonably insure the safety of the mother and at the same time give the child a possible chance of living. There is a grave responsibility thrust upon the accoucheur that can neither be shirked nor shifted. He must be equal to the occasion. The emergency of the case requires his undivided attention. The objections of the parents to the induction of premature labor must be met. Frequently they will fail to see the necessity of such a formidable procedure, and the attending physician will have some difficulty in convincing them of the necessity of such a course; however, he will find by waiting and repeated hemorrhages he has jeopardized his patient's life to an unwarranted degree, with nothing but a fatal termination momentarily staring him in the face. You may reason, gentlemen, that if the patient will not accede to the plan proposed, which you deem absolutely necessary for her safety, that you would be justified to immediately sever your connection with such a case, and retire. What would be profited by it? The good name and reputation that cost you many weary days and self-sacrificing labor is at stake, and would you allow a charlatan to ruin it? By no means. For in all probability an unscrupulous medical man or empiric would be called in, and the waiting policy carried out. Should labor be tedious and threatening, and all safeguards to the mother broken down, your services would again be solicited, and the responsibility, shirked by the assuming doctor, finally thrust upon you, resulting either favorably or unfavorably, your professional reputation would be damaged irreparably in the community, and your vilification heralded by a thousand tongues from Dan to Beersheba.

CASE II. Mrs. B., aged thirty-three, multipara; fifth confinement; in her ninth month of pregnancy. I was called to see the patient April 7, 1887, at 2 A. M. The history, in brief, was that she had a few light labor pains the day before, and at intervals during the night slight hemorrhages No loss of blood during the preceding months. Shortly before my arrival the patient had bled so profusely as to saturate all the bedding under her. Her pulse rate was normal. On auscultation I could distinctly hear the fœtal heart sounds and uterine souffle. The patient stated, however, that she had not felt any movements for some time. Digital examination revealed the cervix dilated to the size of a dollar, and the placenta partly covering it.

Diagnosis.—Placenta prævia marginal.

Fearing a repetition of the experience I had with the former case, I sent for the late Dr. D. P. Moyer, in consultation. I plugged the os with bits of muslin saturated with vinegar, for hemostatic purposes, and filled the vagina in the same way. Upon the Doctor

making an examination another gush of blood followed. Stimulants were administered, and in our estimation the patient's condition would be endangered by delay, so rapid dilatation and delivery by the forceps was agreed upon. The use of an anæsthetic we agreed a perilous undertaking, as we suspected, from past knowledge of the patient, a phthisical tendency existed. Gently passing my right hand into the vagina I helped at dilatation with my fingers, permitting my hand to act as a tampon. Dilatation was easily and rapidly accomplished. Bleeding was now stopped, and being reassured of the viability of the fœtus we hastened delivery. Pressing my left hand upon the abdomen and supporting the uterus, I could determine with my right within the os that the vertex was presenting. The os being sufficiently dilated, I ruptured the membranes and soon the head became engaged at the superior strait. Not wishing to interfere with a natural process, we made no attempts at version. Leaving the patient in the dorsal position she had constantly occupied, I proceeded to apply the forceps. I had some difficulty in doing so, and the act was accompanied by more loss of blood. I had difficulty in locking the forceps, but why we could not determine, as the result showed they had been properly applied. Delivery was accomplished in less than three hours after taking charge of the case. The child was stillborn, and all efforts of Dr. Moyer at resuscitation were unsuccessful. The placenta followed in a few minutes. No attacks of syncope occurred in this case. The mother made a slow recovery. A rise of temperature occurred on the second day, and foul smelling lochia; but I ordered vaginal injections, thrice daily, of carbolized water, and prescribed several antipyretic doses of quinine, and in three days all abnormal symptoms disappeared.

The subsequent history, briefly narrated, may be of interest. On the seventh day an attack of phlegmasia-dolens came on, causing the right leg to become greatly swollen and painful from hip to toe. Quiet was enforced, limb elevated, and hot fomentations applied for ten days, when the pain and swelling had greatly lessened. Applied bandages, and later light friction, avoiding the larger veins, and stimulating lotions. The leg required three months to attain its former size. Medicinal treatment consisted of quinine and iron to sustain the system, and opium to relieve pain. Daily alvine dejections were secured by the used of sulphate of magnesia. One year after this she aborted, eight months pregnant; labor followed by adherent placenta. In nine months she again aborted a five months' pregnancy, and six months later died of consumption. Evidently a hereditary taint also existed, as both her parents died from consumption.

In cases like this, we should be largely guided by the viability or non viability of the fœtus. If no fœtal heart sounds can be heard upon a careful examination, nor has the mother felt any movements for some time, we should have no compunction about separating the placenta entirely, and inducing quick delivery. A thorough knowledge of the patient's previous history is of importance, as it was in this case; for suspecting the incipiency of phthisis, the exhibition of an anæsthetic would have been injudicious.

Case III.—Mrs. Y., aged twenty-two, multipara nine months pregnant; this being her second confinement; always enjoyed good health; the former labor difficult, and the child living only a day. No periodical hemorrhages during the preceding months.

I was hastily summoned on May 2, 1887, at 9 A.M., and found patient greatly alarmed at her condition. She had been doing light house work when a sudden gush of blood occurred, the patient, fainting, fell to the floor; the flow being so copious that her clothing, carpet, etc., were completely soaked in blood, with a pool about her. The patient was left lying in a comfortable condition until my arrival. Upon carrying her to bed in an adjoining room another flow occurred. Had I not seen the amount of blood lost I would have seriously doubted the condition of affairs if told me; not thinking it possible to lose so much blood without terminating fatally. By this time the patient was in an extreme exsanguine condition; countenance blanched, lips blue, breathing irregular, sighing and pulse hardly perceptible. Her very appearance appealed to me for instant aid for herself and unborn babe. Digital examination revealed the os more than half dilated. I could feel the margin of the placenta on the right side, to the extent of about three inches.

Diagnosis.—Placenta prævia marginal.

My examination dislodged the blood clots, and more blood was lost. At this instant an alarming syncope took place, and I now felt sure that death would end the scene in a few minutes. Stimulants had been regularly administered, and seemed to revive the patient. Forewarned is being forearmed. I carefully inserted my hand into the vagina, letting it act as a tampon in the os, and extending my index finger could feel the vertex presenting. The os being sufficiently expanded, I hoped for a speedy delivery. With the intention of accelerating labor, I ruptured the membranes, permitting the liquor amnii to escape, and slight bearing-down pains then became manifest, bringing the head to engage upon a margin of the placenta and checking the loss of blood. My hopes were realized. I made no attempts at version, as I could not see the necessity for doing so now in this case. The patient being completely exhausted, bearing down pains lessening, and her condition admitting of no delay, I administered a drachm of fld. ext. ergot, and proceeded to rapid delivery with the forceps. Leaving my patient in the dorsal position, I inserted my forceps without any difficulty. During this procedure the mother lost more blood, and was for a time pulseless; respiration had almost ceased, a desperate condition of affairs existed, and by main force I delivered, as expeditiously as possible into this world, a nine pound boy within two hours from the time I took charge of the case. Reaction came on in a few moments, the womb contracting, the placenta was expelled in a few minutes. No post-partum hemorrhages. The child was almost asphyxiated; but by continued efforts at resuscitation for a few minutes it began crying lustily. On the third day I found patient with a temperature of 103, and several rigors during the past night, and an offensive lochial discharge. I prescribed antipyretic doses of quinine, and ordered a vaginal injection of carbolized water thrice daily for three days, and had no further trouble with the case. The mother was left in a very anemic condition, but went on to a protracted, but complete recovery.

I solicit your criticism in these cases, knowing it will be just and varied; for unanimity of the plans of procedure and treatment of placenta prævia is the exception, and in this case the exception is the rule. No attempts at antiseptic midwifery were made; but absolute cleanliness was insisted upon. Delivery by the forceps is advocated as soon as sufficient dilatation exists to make it reasonably safe. Separate the placenta as far up as possible, especially that portion

adhering in the lower zone. Do not allow the placenta to escape before the birth of the child. The first consideration should be the mother's welfare. If assured of the viability of the fœtus, accelerate labor as much as possible, unless it would be seriously endangering the parent's life by haste, to give the child a reasonable chance of living; notwithstanding the teachings of some eminent authority to the contrary, which throws out all consideration for the child. In case of inertia of the uterus, or exhausted strength, administer ergot and stimulants, employ massage, or, better still, make pressure over the fundus, either by hand or with a binder. To control the hemorrhages the accoucheur's hand makes Your fingers will be equal to the gift of a third eye, an excellent dilator and tampon; however, a rubber dilator might be more desirable. In a case where the membranes were ruptured and the os only partly dilated, the greatest effort should be made to use the hand as a tampon and fingers as a dilator. As undesirable as this procedure may be to the attending physician, it is his bounden duty to use all possible means to save the patient's life. You have the means for rapid dilatation and delivery at command, and often this method is your patient's only salvation. and all changes will be instantly noted. Other means are dangerous. Escaping blood may be surreptitiously occupying the place vacated by the escaped waters, and suddenly the patient be lost. The physician had converted an open hemorrhage into a concealed one, and was unaware what was happening. Friends might attribute the sudden death of the patient to an act of Providence, but the observant attendant will now see his error; he had blinded his own eyes, deceived his own senses.

TRIPLE NARCOTIC ADDICTION.

OPIUM, ALCOHOL, COCAINE.

By J. B. MATTISON, M.D.

Member Amer. Assoc. for the Cure of Inebriety, of the New York Neurological Society, and of the Medical Society of the County of Kings.

HOME FOR HABITUÉS, BROOKLYN, N. Y.

Read before the American Association for the Cure of Inebriety, Hartford, November 6, 1890.

THE cases cited in this paper are of more than usual interest. Each tells its own story, and each has a moral that well adorns the tale.

Dr. A., married, aged thirty-four years, weight two hundred and three pounds, in 1879, while acting as interne in a New York hospital, took, for a severe attack of urticaria, a morphine hypodermic. It cured the rash, but consigned him to an opium bondage of nearly ten years, and, later, sixteen months' triple serfdom to morphine, alcohol and cocaine.

At the time of coming under our care, Dr. A. was daily taking, hypodermically, ten to thirty grains of morphine, ten to sixty grains cocaine, and twelve to sixteen ounces of rum. He weighed one hundred and fifty-five pounds, having lost forty-eight pounds. His heart and lungs were normal. The bowel torpor was marked—weekly dejections, and then only by enemas. He had occasional attacks of nausea, vomiting and anorexia. There was loss of memory, and mental hebetude. His skin was pallid and sallow, and sweating at night was profuse. The renal secretion was scanty; no other special feature noted. Sexual desire and power were almost nil.

Twenty-eight months before coming to us, he succeeded, with the aid of a devoted mother and the writer's plan of treatment, in breaking his bonds. One year of freedom followed. Then, under the stress of business cares, he gave way, and his last state became worse than the first. His weight fell from two hundred and three pounds to one hundred and forty-seven. Despite a morphine increase to thirty grains *per diem*, he had insomnic bouts lasting forty-eight hours, followed by great nervousness, inco-ordination, and extreme mental depression. Delusions of persecution with homicidal tendings followed the cocaine using.

Dr. B., married, aged forty-six, weight one hundred and forty-five, began morphine, hypodermically, in 1886, to relieve a long-standing neuralgia sequeling rectal fissure. His daily taking was usually ten grains, extremes four to sixty. One year ago he took a dose of cocaine, subcutaneously, for local anæsthesia, prior to lancing an abscess, and this opened the door to a new narcotic devil—reaching thirty-five grains a day. During the last six months he daily took six ounces of rum.

The results were:

Brain.—Hallucinations and delusions, homicidal and suicidal, after large doses of cocaine, or upon its sudden withdrawal, during the last six months. Moderate aphasia during the past year.

Heart.—Action constantly quickened, never under one hundred and twenty during the past two years.

Lungs.—Moderate general bronchial catarrh.

Stomach.—Catarrhal dyspepsia, with pain, especially at night.

Bowels.—Torpid before cocaine; free, after.

Skin.—Moist, sallow, and pale.

Sexual.—Entire loss of power and desire for two years.

Renal.—Daily amount, thirty-six ounces; albumen; no sugar; no casts; sp. gr., 1,036.

Soon after commencing cocaine, buccal mucous membrane became tender and painful, and, with the tongue, took on a peculiar reddish hue, which is thought to be characteristic of chronic cocaine poisoning—gums, tongue, and throat acquiring a condition said to be specific.

These gentlemen recovered. Dr. A. was under treatment six weeks; Dr. B. four. The writer's method—for details see *Therapeutic Gazette*, September, 1890, reprint at command—was used. There was nothing peculiar to their narcotic quitting and convalescence save that Dr. B. went through several storms of neuralgic pain, while Dr. A. had scarcely a twinge. Cannabis indica, Squibb's fluid extract, sixty minim doses, was the main hypnotic. Central galvanism, morning shower-baths, and full feeding were the roborants with Dr. A. Liberal diet with coca and quinine served Dr. B. The former's appetite assumed very ample dimensions, and his avoirdupois increased at a rate of ten pounds per fortnight. The latter put on forty-five pounds within three months after leaving.

Following our counsel, Dr. A. sailed for the Azores. Has lately returned, feeling well and weighing two hundred and four. He may abandon his profession. Dr. B., at this writing, is on the ocean, and will not resume work before '91.

What of the future? Much depends. If either begins practice too soon, he will succumb. The strain will be too great, and narcotics, either as stimulant or soporific, will be in demand, to be filled by one or all of the former drugs. Dr. B. must have months for getting well; Dr. A. *should* have *years*. The importance of hygienic care and favorable surroundings, after active medical need is ended in these cases, cannot be overestimated, and *they are absolutely essential to effect a lasting cure.*

"THE PROGNOSIS OF PRESSURE PARALYSIS."

By T. HALSTEAD MYERS M.D.,

Attending Orthopœdic Surgeon to St. Luke's Hospital; Assistant Surgeon to N. Y. Orthopœdic Dispensary.

AT the present time when surgeons are so eager to operate upon the spinal cord to relieve pressure paralysis, it is important if possible, to establish the prognosis of cases left without operation.

I have limited myself to a consideration of the pressure paralysis of Pott's disease, and the cases studied are all those which presented themselves at the New York Orthopœdic Dispensary up to the beginning of the present year, which have been kindly placed at my disposal by Dr. Shaffer. A number far too large to tabulate, hence my statements must be general ones.

Of these 1,570 cases, 218 were sooner or later paralyzed; 16 from disease of the cervical vertibræ, 12 cervico-dorsal, 105 from dorsal disease above the eighth, 40 from lower dorsal, 19 dorso lumbar, 18 lumbar, and 9 unspecified.

The average duration of the paraplegia of these cases in which it was noted, and which were known to have recovered, as estimated from the onset of any symptoms until the patient walked well, was in the cervical region twelve months, in the upper dorsal nine and one-half months, in the lower dorsal six, and in the lumbar eight months. The longest duration in the cervical region was twenty-four, in the upper dorsal forty-eight, in the lower dorsal twelve, and in the lumbar twenty-four months. I wish here to mention another case of cervico-dorsal disease, though its termination is not known, which was beginning to improve after a paralysis of five years' duration. The paralysis of the spincters having disappeared, and the child walking, though with ataxic gait.

It is interesting to note that of these 218 cases, 85 became paralyzed while under treatment (5 of these were in the cervical region, 53 in the upper dorsal, 21 in the lower dorsal, and 6 in the lumbar), and that in these the average duration, calculated in the same way, was less than that already noted, viz.: in the cervical region but five months as against twelve months; in the upper dorsal but seven as against nine and one-half; in the lower dorsal five against six, and in the lumbar but three as against eight months.

Eighteen of these 218 cases had repeated attacks of paralysis, usually the result of injury, acute disease, or lack of the proper attention to the braces. These subsequent attacks were of neither greater nor less duration, nor did they vary in severity as a rule from the original attacks, and they were recovered from equally well. Two cases had four attacks, and a number had three with good recovery. All cases, however, were not so fortunate, and I found two recorded where the patient had passed through one and two attacks, and finally died paraplegic.

The interval between the attacks varies from a few months to four and one-half years.

A late onset of paraplegia sometimes occurs. In one of these cases it first appeared seven and three-fourths years after the onset of the disease. The average duration of the disease, however, before the onset of paralysis, I found to be in the cervical region, also in the upper dorsal, thirteen months, in the lower dorsal fifteeen months, and in the lumbar eighteen months.

I found no cases where the bony lesion was below the motor area involved. Paralysis affecting the upper extremities was recorded in only 7 cases, of these 3 were not treated at all, 1 died after an operation on an abscess connected with the diseased spine, and 3 were cured.

Some cases recover without treatment; these records show 13 such.

That the character of the kyphosis does not affect the paraplegia is very well shown in 2 of these cases, where the improvement in the paralysis was coincident with well marked increase in the kyphosis.

The first indication of paraplegia is the exaggerated knee-jerk. This occurs sometimes a considerable time before the loss of motor power, and persists also after recovery from the latter. Weakness is the next symptom, the patient complains of getting tired easily. In most cases this is accompanied, as we should expect from the pathology, by pain or parasthesiæ, but it was surprising to me that many cases became bedridden without complaint of any accompanying pain. The motor paralysis usually attacks both lower extremities at once. In some cases, however, one limb is affected before the other, or more severely; in still rare cases but one extremity is attacked, or the paralysis affects the upper extremities as well. Ankle clonus is noted much less frequently than knee-jerk; usually this symptom disappears much earlier also. The superficial reflexes, unless well marked, are, I think, in children unreliable. Spastic rigidity of the limbs and anæsthesia are later symptoms indicating a very considerable degree of pressure. The muscular twitching movements, which are sometimes observed early, are due to irritation of an abnormally sensitive reflex arc, which may be theoretically either central or peripheral. This exaggeration of the reflex action makes it difficult to determine in some cases whether there is anæsthesia or not, as the muscular movement resulting from a pin prick seems closely to resemble a voluntary act. A child may besides be cognizant of the grosser movements of the limbs, though insensitive to painful impressions.

Paralysis of the bladder, almost exclusively in the form of incontinence, is noted in these cases much more frequently than rectal paralysis. I have seen the statement that cases in which the bladder was paralyzed for three months would probably never recover. In my cases which recovered, several were paralyzed for two months, and 2 between three and four months.

The first evidence of improvement is cessation of pain (where it exists), then diminution of the clonus, with a gradual return of power to the affected limbs. The exaggeration of the knee-jerk often persists months after the patient is able to walk well. In one case it was present nine months after. In cases of repeated attacks of motor paralysis it sometimes almost bridges the interval between the attacks, though this is by no means universally so, and I hesitate to say more than that it is taking a risk to let a case with exaggerated knee-jerk walk. On the other hand, I think a patient with ankle clonus should never walk.

The presence or absence of abscess seems to make no difference in the prognosis of the paralysis. A sudden onset, or a sudden relief from pressure symptoms, not associated with traumatism, I think, is due in some cases to rupture of an abscess into or from the spinal canal; I have seen two beautiful specimens of the former accident.

The prognosis of paralysis depends upon the extent of the cord lesion, which we have found is independent of the extent or character of the kyphosis, the rapidity of the onset or the duration of the disease, but is dependent somewhat on the location. I know

of no perfectly certain indication of the extent of cord lesion. It is most accurately determined by the atrophic condition of the muscles, whose nutrition is controlled by the affected region of the cord, by the electrical reactions of these muscles and their nerves, and by the condition of the reflex arc at this point. The duration of the sensory symptoms, as of the motor symptoms, even the paralysis of the rectum or bladder, are simply confirmatory.

The prognosis is in general very good. Of the 218 cases, though 55 per cent. only are *known* to have recovered, 26 per cent. (none included in the recoveries) were not treated at all, and at once passed from observation, 3½ per cent. died of intercurrent disease, and the termination of the remaining 16 per cent. is unknown.

THE WEST INDIES AS A SANITARIUM.

By WILLIAM F. HUTCHINSON, M.D.

CHAPTER VI.

SANDWICHED between two islands of the British West Indies, lie three or four that belong to France. Indeed, a great portion of the charm that a voyage down here possesses, is due to the fact that within a very short space of time and distance, one may change not only the nationality of the country he is in, but the customs, manners and surroundings as well.

To go from Spain to Denmark, from Denmark to England, from England to France, and back again to British territory, to do all this within a hundred miles of travel, and to find in each outlying island the country to which it belongs far more strongly national and characteristic in its customs than the fatherland itself, is what one can only do in the West Indies.

Emigrants who come here from Europe rarely return. They preserve and transmit to their descendants the ways and means of the homeland as a part of their patrimony, and since they themselves may never see it more, they build around them as close an imitation as circumstances permit. By years of practice these circumstances become more and more accented, and things that are most strongly marked in the fatherland become more and more developed and pronounced, till the Cuban becomes twice a Spaniard, a Barbadian three times an Englishman, and a Martiniquien four times a Frenchman. So that we have in each of these islands that we successively visit, an epitome of the country to which it belongs presented to us in a concentrated way that is perhaps more completely illustrative of the lands to which they belonged than would be years of residence in Europe.

So within six hours after leaving England behind at Domenica, we step ashore in France at Guadeloupe, and in France of the last century.

Nothing is more peculiarly Gallic than the first view of a street in Point-a-Pitre. There are these exceptions it is true; that the people we meet are black instead of white, that the sun that shines upon us is perpetual instead of intermittent, and that the temperature is many degrees higher than in even the sunny parts of France; but the tongue we hear, the language that is spoken is pure, and barring a certain accent that seems as if it may have been borrowed from the hot land where we hear it, one might close his eyes and be at Marseilles.

Beneath the rays of a tropical sun that beat down upon our unaccustomed heads with fury, these Frenchmen wear black clothes and silk hats, and stroll about the streets under the shade of sun umbrellas when the thermometer marks ninety at coolest time of day.

Our tourists paid small attention to such trifles as sun or heat, pervading the streets of this Franco Indian town with so much celerity and perseverance as to give the idea that their numbers were scores in place of four. They captured carriages of our guides, carrying each in hand a French phrase book from which they manufactured sentences so extraordinary in sound and accent that the amused natives took their money, guessed at what they wanted, handed out a mixture of cool drinks and all parties were content.

That novel experience to Americans, of wine served free at dinner in any desired quantity, first made its appearance to us at Point-a Pitre, and our young gentlemen, winking at each other as they sat down at the table at the pleasant "Hotel des Bains," drew each to himself a quart bottle of claret, filled a brimming glass and proceeded to dine as pleased as possible. Before the meal was finished they had taken care of more wine than they had of food, and the result of general extreme hilarity suited so well the temperament of the natives that a profound friendship was struck up and cemented by more flowing bowls and noisy shouting of the "Marsellaise" and "Star Spangled Banner" in frightful combination.

One of the most attractive places to visit in Guadeloupe, guided by a Freemason, is the Masonic Temple at Point-a Pitre. Upon a hill within the town a building of Egyptian style has been erected, the grounds around which comprise the entire elevation. At the foot a wall separates the consecrated land from outside territory, and the whole of the enclosure is devoted to Masonic purposes, where there is a home furnished for the wandering brother who finds himself drifting in this far-off land. Since heretics may not be buried in Catholic countries in consecrated soil, these brothers of the order that know no religion except that independent of any sect, have laid out within their grounds a pretty cemetery where any one who dies within their jurisdiction, belonging to the order, may be buried in ground that is holier than any consecrated by the church.

Thus in these islands of the Indies, Freemasonry finds its truest and widest exponent, and brotherhood here is not merely a word, but has the signification which should belong to it everywhere.

It is difficult in so short a stay as I made in Guadeloupe to ascertain much about its sanitary condition, or diseases of the island, but as it is unlikely that American tourists will do more than pay a flying visit here, a few words are all that may be necessary.

Within the last few years both Guadeloupe and Martinique have been ravaged by small-pox. Following the example of the mother country where compulsory vaccination has never been the rule, they have not attempted to enforce it, and the result was a frightful epidemic. This has now disappeared, I believe more from lack of material than any other cause, and the islands are in a state of health.

I noticed particularly open sewers continually flushed by rapid streams of pure mountain water that carry all impurities promptly to the sea, and even in the most crowded parts of the town there are no unpleasant odors whatever.

Such a thing as a water-closet, as we understand the word, does not exist in these two islands, with the sole exception of one or two in a club house or private dwelling, and the primitive method of using tubs which are emptied every morning at daylight into these swift streams by the street-side, is still in vogue.

Food of all kinds is plentiful and cheap, and one may board at the first hotels here and in Martinique, with comfortable rooms and all service, for two dollars a day.

Drives out of town are numerous and attractive, and a party may hire a two-horse carriage for about four dollars a day, which will carry three persons beside the driver. They will find their coachman communicative and intelligent, ready to tell them of the places that they pass, and keep them amused from start to finish; only some one, or all of the party must speak French, for a knowledge of the English language is so great a rarity that I only found in my wanderings about town a single person who could speak our tongue, and that was a servant at the hotel.

The artist will find in all the towns of this island plenty of quaint objects of a past age, plenty of bits of exquisite scenery to occupy his pencil for many a day, and some of the photographs that I brought thence have been admired, not only for their artistic beauty, but for the wealth of suggestion that they contain.

I would advise any one who can find time to spare, to spend a couple of weeks in this curious, quaint, and attractive island. He will find in the American Consul at Point-a-Pitre an intelligent, courteous gentleman, whose long residence there has made him almost a Frenchman, while he has not forgotten his love for his native New England, nor to show warm hospitality to his wandering countrymen.

From Guadeloupe to Martinique is but a beautiful twelve hours' sail. When the first stars of a tropic night are gleaming from the sky that is so dark a blue as to be almost black, the steamer gets its anchor and heads away to the southward for the island of Josephine. While yet these same stars shine, mingling their light with the morning sun, the ship skirts along under a rocky and bold coast, whose contours of soft roundness are sharply alternated with peaks, rocks, dark gorges, and streams that leap hundreds of feet directly to the sea.

The bay of St. Pierre is one of the most picturesque in these beautiful islands; but it must be understood that this is only one of several that Martinique possesses, and that although the city we now approach is the leading one of commerce, and the largest in population, it is not the capital, nor has it that harbor that has made Martinique an object of envy to every power that owns territory down here. Yet the picture is a beautiful one; and whoever sees the morning sun rise over mountain peaks behind the town for the first time, scattering shadows that have concealed cathedral towers, red tiled roofs, and tall palms like curving plumes, on its way westward, touching the shining water with polished lances of light, will not be likely to forget the harbor of St. Pierre.

Like Guadeloupe, the landing is essentially French. Boats of every description surround the ship, and every boatman shouts his loudest in his native tongue, "Prenez moi, Monsieur, je suis le premier."

The most extraordinary apparatus in the shape of boat that mortal eye ever beheld, dances around the anchored ship at St. Pierre. It resembles nothing so much in all this world as a coffin made of rough boards, with the top left off. The occupant, however, so far from being dead, is the liveliest little darkey that it is possible to conceive. He paddles his funny boat from shore with his hands, and sits upon its bottom as destitute of clothes as when he was born, ready to dive like a frog for the smallest coin that may be thrown him from the deck above. He always gets it, too.

From the landing-place to the Hotel des Bains is but a short walk, scarcely impeded by a visit to the custom-house, whose officers are so polite to tourists that they never open any trunks at all, and mark them "All right," with a courteous wish that our stay in the island may be pleasant.

The first view of a French West Indian hotel is a revelation of oddity to a stranger. Outside it presents no especial difference from other houses in the block. Inside one finds a paved court and an immense cage, where fowls of various kinds are waiting their call to serve as parts of the dinner each day. Why this cage exists none can tell, for its doors are always open, and the fowls amuse themselves by excursions into the various sleeping-chambers, to which they have free access day and night.

All the rooms open inward on galleries, and if at any time one needs a servant, he steps out and calls for Marie or Justine, as the case may be. If she is away upon an errand, some one answers for her, "Tout de suite, Monsieur," which means anywhere from half an hour to half a day. If she is there she replies, "On viens, Monsieur," and is forthwith at your door.

The very moderate charge of $2 per diem means bed and three good meals a day—wine and service included—and I am bound to say that all were content. The first breakfast is brought to the room at 6 o'clock, and one eats enough of rolls, Danish butter, soft boiled eggs, and delicious coffee with milk, to last till the regular breakfast comes at noon. This is an elaborate meal of six or seven courses, with plenty of good claret, differing only from dinner—that comes at 7—in the latter having soup to begin with, and a few more courses. After dinner a cigar and chat for the gentlemen, and then comes bed; and by 9 o'clock the town is asleep.

It is true that minor annoyances of insects are by no means absent. Cockroaches the size of mice, that travel over the bare floor in the dark; centipedes six inches long, that are now and then killed under one's dining table, are at first annoying, but one soon learns to make light of them, as they never do any real harm. Spiders are of prodigious dimensions in all these tropical islands. My friend Garesche, the gentlemanly American Consul, showed one in his drawing-room that had remained patiently in one position upon the ceiling for several weeks. "When he gets hungry," said the Consul, "he comes down, hunts up one or two cockroaches, and is content for an indefinite time thereafter to remain quiet at his post."

After the first breakfast was over, we found amusement plenty in wandering about the quaint, curious streets, looking in the little shops that were filled with things strange to Northern eyes, and inflicting upon the polite owners a series of questions in what we were pleased to call French; or, calling a carriage—and, as in Guadeloupe, one may have a double team here all day for $4 that will carry three beside the driver—start for a journey amongst some of the most attractive scenery that the world knows.

Without being hot at any time, the air is simply delicious in the morning. It comes pure and sweet from the lofty mountains around the town, mingling with the fresh water of the clouds, and the salt sea-breeze from the sea, at a temperature which, during our entire stay, did not exceed 80° at the highest, and sharply fell from that point as we climbed the mountain roads, until within an hour's drive from the hotel to Mont Rouge, we found light overcoats comfortable, and my pocket thermometer 66° at noonday.

One of these delightful drives carried us to one of the famous medicinal baths of the world. It is called Les Fontaines Chaudes, and lies in a deep gorge that cleaves the island's surface from mountain peak to sea, some twelve miles distant from town.

The only difficulty that I found with these thermal springs as a resort was, that from the last point attainable to the Springs Hotel it was necessary to walk or be carried over a rough road of about a quarter of a mile. At the springs is comfortable accommodation for a numerous party. The water is strongly sulphurous, at a temperature of 105° where it enters these swimming baths, and 95° where it leaves them. The basins are large and well cared for, special accommodations being provided for men and women. A medical man has charge of them, and of the hotel as well, and he assured me that some really wonderful cures of rheumatism and allied affections were effected. He gave me an analysis of the water, which showed its percentage of sulphur in gaseous form to be as large as any on record. It contains besides, silica, lime, and soda to an appreciable extent, and one feels after leaving the bath, where no soap is used, as if he had been oiled from head to foot.

Another delightful excursion is the one to Fort de France, the ancient capital of the island, and still the residence of the Governor. Here is a magnificent harbor, almost land-locked, with immense capacity inside, and surrounded by lofty peaks that shut off all danger even from hurricanes. In the middle of the great square that is the chief attraction of the place stands a beautiful marble statue of the Empress Josephine, erected to her memory by Napoleon III. She was born at the little hamlet of Trois Islets, farther on across the bay, and the place is more alive with memories of this woman than is even our own Mount Vernon of Washington.

Around Fort de France there are also numerous thermal springs, access to which is easy, but they do not possess either swimming baths or a hotel close by.

I found these two islands singularly destitute of lepers in the streets. Making inquiry of one of the leading physicians, I was told that the disease scarcely exists — at least in comparison with the English islands—and that as soon as a case appeared it was promptly isolated; nor was there, at the time of our visit, any epidemic disease whatever.

At the time of year that includes winter months there is no such thing as yellow fever, and moderate precautions as to diet and exposure to the heated midday sun are sufficient to insure to visiting strangers continued health.

At home, one hears on every hand stories of poisonous serpents of Martinique, that are called the iron lance (le lance de fer). That there are numbers of these snakes in the island is doubtless true, for the records show some twenty-five deaths per annum among native negroes from their bite; yet, in several visits to Martinique, and continual wandering over its beautiful roads, I have never made the personal acquaintance of a single living specimen. During one of my visits I offered a reward for one of then, alive or dead, but none were forthcoming, and the only one I ever saw was a specimen mounted for exhibition at the botanical garden. There is no more danger from serpents in Martinique than there is in the Adirondack region.

Nights are invariably cool and refreshing, and the trade wind blows so strongly through sleeping rooms that a blanket covering was very comfortable during our entire stay.

In place of the light clothing one expects to see, gentlemen of these islands wear conventional black, and appear comfortable therein, while the ladies rarely use for street wear anything thinner than one sees on Broadway or Chestnut street in May.

MARTINIQUE, MARCH, 1890.

The Polyclinic.

POTASSIUM iodide has been given by Wolf in doses of from 30 to 50 gm. daily in obstinate cases of tertiary syphillis. It is dissolved in a decoction of rice in order to prevent iodism. The same salt was also given in large doses in a case of psoriasis by Dr. Stenhouse, who administered to a young lady 100 ounces of potassium iodide from March 8 to August 3, the largest doses being 210 grains three times a day. Its influence over the psoriasis did not appear until 360 grains were taken daily.

—*Journal of Pharmacy.*

POMADE FOR PRURIGO.

℞.—Boric acid,
White wax.....āā 10 parts.
Parafine ..... 20 "
Olive oil ..... 60 "

—Kaposi, *Journal of Pharmacy.*

When having introduced a probe into a lachrymal duct do not let it rest on the floor of the nares, but withdraw it slightly, otherwise it may occasion a painful toothache.

Occlusion of the lachrymal duct, Keyser believes is due to an ascending catarrh from the nasal passages. Some maintain that it is due to an extension of inflammation of the conjunctiva through the puncta lachrymalia, but Keyser thinks that impossible, for the first evidence of inflammation at the puncta would so occlude it by swelling that further extension of the inflammation would not be possible.

W. C. Drake, in the *Druggists' Circular*, submits a number of well tried receipts for toilet preparations, from which we select the following:

Lime juice and glycerine for the hair.

Benne oil ..... 16 ozs.
Lime water..... 24 "

Put the oil in a large mortar, and gradually add the lime water, using an egg beater, thoroughly mixing them. Perfume with a half ounce of a mixture of

Oil of bergamot ..... 8 drachms.
Oil of lemon.. ..... 4 "
Oil of lavender..... 2 "
Oil of cloves..... 1 drachm.

This preparation is put up in 4 ounce bottles, and closed with corks which have been soaked a short time in an alcoholic solution of corrosive sublimate, 1 grain to the ounce to prevent mold.

A good disinfectant injection for leucorrhœa is:

℞.—Potassii chlorat..... ℥iij.
Tinc. opii ..... f℥ijss.
Aquæ picis..... f℥ix.

Fiat. sol. Two or three soupspoonfuls of this solution in a quart of hot water may be used as an injection, morning and evening, to correct the fœtidity of leucorrhœic discharges which accompany some cases of endometritis, polypus, fibrous bodies, ulceration of the cervix uteri, or even simple vaginitis. The injection should last five to six minutes each time.

—*Presse Med., Belg.*

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WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

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TREATMENT OF SYPHILIS BY SUBCUTANEOUS INJECTIONS OF CALOMEL.

IN the year 1864, when Scarenzio published the results of his treatment of eight cases of syphilis by hypodermic injections of calomel, little interest was taken in the matter. This was due partly to the prevailing preference to the treatment by inunction, and also to the fact that Lewin had been pushing into prominence the treatment of syphilis by subcutaneous injections of corrosive sublimate.

Scarenzio injected the drug suspended in glycerine, but later abandoned this medium for a solution of gum arabic. According to his views three or four injections of 0.1 gramme of calomel were all that were required, and he also stated that two or three injections of calomel would accomplish more than twenty or thirty injections of corrosive sublimate. Abscesses resulted nearly always. In 1872, Schopf, a German syphilographer, used calomel injections with similar results, but complained against the almost invariable formation of abscesses; he also noted a frequent occurrence of stomatitis. Kölliker, on the contrary, claimed that calomel injections were less liable to produce abscesses than sublimate injections. And so on, numbers of physicians tested the method, all with success regarding its efficacy, but with varied experiences regarding the accompanying and after symptoms.

The best, among the earlier results, were those obtained by Watrascewski, in 1884. He used calomel in suspension in a solution of gum arabic; and injections containing 0.1 gramme of calomel into the gluteal region once in one or two weeks. Seventy patients were submitted to the treatment, and in all two hundred and fifty-seven injections were made. The formation of abscesses was only observed in four instances. Usually three injections were sufficient to effect a cure. The injections were but slightly painful.

Shortly after these experiments Neisser suggested the use of the following formula for injection:

R.—Calomel,
Natr. chlor., ... āā 5.0 grammes.
Aq. destill., ... 50.0 grammes.
Mucil gumm., ... 2.5 " —M.

He gave four to six injections—either one a week, or all within two weeks. While commenting favorably upon the method, he gave it the second place in the treatment of syphilis, holding inunction to be more valuable. He gave, in all, 717 injections, and observed the formation of abscesses in 31 cases; most of which were due, however, to bad technique. At the Fifth Congress for Internal Medicine, at Wiesbaden, Neisser again made reference to the treatment, and was supported by Doutrelepont, although the latter claimed the superiority of the treatment by inunction. Edlessan, at the same Congress, went still further, and stated that relapses were more frequent after the treatment by injection than after inunction. Of late, since the technology of hypodermic injections—and especially antisepsis—has been more generally understood and followed, the method has been steadily gaining favor, and is now ranked as the most practical, if not the most efficacious method of dealing with syphilis.

Regarding the theory that relapses are more likely to occur after the use of calomel by injections, this still remains to be proved. The formation of abscesses can be entirely avoided, and is only the result of carelessness—not necessarily on the part of the physician, but possibly on the part of the druggist; for, if the preparation has been rendered impure, or carelessly compounded, even the most stringent antisepsis will be unavailing. It should be compounded in glasses cleaned with hot water, and disinfected immediately before their use. The syringe must be aseptic. It should be taken apart, and allowed to soak in a five per cent. solution of carbolic acid for at least half an hour. It is a good precaution to use a new canula for every patient, or at least have the point re-ground. Then, the seat chosen for the injection should be rendered aseptic by means of scouring with brush, soap, and hot water, and washing with ether and a five per cent. solution of carbolic acid. The syringe should be filled with the injection fluid in such a manner that below and above the calomel solution there is a drop of the five per cent. carbolic acid solution. The calomel must be prepared with infinite care, and suspended in the purest olive oil. Immediately after the injection, the puncture should be dusted with iodoform and protected with a carbolized dressing, which must be kept in place for twenty-four hours at least. It is well, also, to keep the patient quiet for the first twenty-four hours after the injection; but this is not absolutely essential.

The method, as described above, is that which has recently been used with marked success by Dr. A. Vogeler, whose paper on the subject, in the *Berliner Klinische Wochenschrift*, may be classed as one of the most complete ever written upon this subject.

That the method is entirely free from danger cannot be said, as cases of profound mercurial poisoning have been observed; but these are extremely rare, and, as a rule, even diarrhœa is not occasioned. In such cases, the puncture should be at once opened and the poison removed, while other remedies should actively be employed, such as large injections of hot water into the bowels, etc. The wound, also, should be freely opened, cauterized, and well washed out.

In conclusion, the advantages of the method over inunction, and other methods, may be summed up as follows :

1. It is clean.
2. It is cheap.
3. It is convenient—both for patient and physician.
4. It is reliable in all forms of syphilis.
5. The amount of the drug introduced into the system can be accurately determined.
6. Pain or infiltration are rare when the injections are given in the ischio-rectal region.
7. Abscesses can be entirely avoided.
8. The method may be regarded as safe. Even in cases of intoxication—which are very rare—a removal of the poison by opening up the seat of the puncture and washing the wound, will cause a speedy abatement of all unpleasant symptoms.
9. Stomatitis is only observed in a mild degree, and may be greatly lessened, if proper care is taken of the mouth.

Annotations.

PLEASURE AND PAIN.

THE *Popular Science Monthly* for December, contains, amongst other articles of general scientific interest, one by Dr. E. Heinrich Kisch, on The Sensation of Pleasure and Pain, which contains some interesting hints on the causes of neuralgia, and general nervous affections. Speaking of feeling pain, the doctor says "That a stimulus striking the sensitive nerves should reach our consciousness as a pain depends not on the force of the attack only, but also on the delicacy of the nervous system, which varies with different men to a considerable degree." And it is this to which, too often, we ascribe nervousness or coolness. The nervous systems of some men are so delicate that the slightest sound or the least shock jars them; the shock paralyzes the brain, and the whole body is unstrung. And to the man of a less delicate nerve organization the shock reaches the brain far more slowly, the brain is left undisturbed and acts, and the shock is, perhaps, really felt when the occasion which has given rise to it has passed.

HUNGER AND SUSCEPTIBILITY TO INFECTION.

IT is a pretty well-known fact that when hungry or tired, one is more apt to take scarlet fever and other infectious diseases than after an easy day and a good dinner. Experimental observations have recently been made by some Italian observers, which are spoken of in the *Hospital Gazette*, and which tend to show that hunger may play a very important *rôle* indeed in the spread of infectious diseases. Pigeons and fowls are not usually susceptible to the infection of malignant pustule or charbon. When, however, pigeons were kept without sufficient food for several days, both before and after inoculation with charbon virus, they became susceptible to the disease, and died from it like other animals; and when they were kept without sufficient food for some days before inoculation, and for two days only afterwards, food being then supplied in proper quantity, the disease, though not prevented, was visibly affected, its course being much more chronic than when the birds were kept hungry for a week or more after inoculation. Another interesting point observed was, that if an ordinary well-nourished and, therefore, insusceptible pigeon was inoculated, and complete starvation commenced eight days later, the disease appeared showing that the charbon virus, though stored in the subcutaneous tissues of an insusceptible animal, retains its virulence for several days. Some experiments were likewise made on pigeons, from which the pancreas had been partially or entirely removed. These appeared to become susceptible to the charbon virus for some time after the operation.

COINAGE AND INFECTION.

IT is no new doctrine says the *Lancet* that in the presence of infectious or contagious disease every object may become endowed with a mischievous faculty of transmission. Nothing is exempt, though some substances are naturally better fitted to act as media than others. Such substances as clothing and carpets may be placed in the first rank, and paper, especially in the book form, hardly second. The scrupulous rigor with which measures of purification are adopted in regard to all these is proof of the wholesome suspicion with which they are commonly invested. It was not to be expected that paper money could escape the stigma, nor should it. Even solid coin has latterly been credited with the same maleficent property. It cannot be denied, indeed, that any penny or shilling may thus be made to bear a novel and mischievous increment of its own. At the same time we can avail ourselves of the relief afforded by modifying circumstances. It is well, for example, to remember the wholesome qualifications introduced by the moving and ventilating process of currency, by the protection of a purse, and by a generally smooth and well-polished metallic surface. On a critical examination of the subject, we are tempted, notwithstanding, to look back with some regret to the old custom of washing change. To insist upon this in ordinary cases of infection would, indeed, be fanciful and unpractical, though we might forgive such pious care. Where, on the other hand, we had to deal with foul and active contagion, we should not care to ridicule one who disinfected his change. In so doing, he only obeys the suggestion of cleanliness and caution.

MISSION WORK OF THE PHILADELPHIA BOARD OF HEALTH.

RECENT circulars published by the Pennsylvania State Board of Health contain much that is sound, and show that sanitation is being carried on, or, at any rate, discussed on the most practical lines. Of special interest is the one "addressed to the clergy," and examining briefly "the dangers arising from public funerals of those who have died from contagious and infectious diseases." As there is so much outcry in these days against cremation, the clergy should at least be careful to guard ignorant, and often misguided people, against any danger of infection by striving to prevent any one being in attendance at the services and interment, even, if possible, to the extent of keeping the immediate family away. In this report cases are sited of whole districts being infected by the attendance of numbers of people at the funerals of those who had died of infectious diseases. But, although this report is specially addressed to the clergy, and merits special attention from them, yet they are by no means the only people upon whom rests the grave responsibility

of the cure of this evil. Much which the clergyman fails to do the physician has the power to accomplish, and every doctor in the land should recognize his duty to prevent the spread of disease. Men in the position, in relation to the laity, which both clergymen and doctors occupy, can do much to put an end to such evils.

The other report of the Board deals with the disposal of the sewage of public edifices, and "rings with no uncertain sound" on the criminality of the pollution of streams by sewage. Among other things which it contains is an extract from a very able opinion of Judge Thayer, of Philadelphia, in which he says, "It is a very old and well settled law that to pollute a public stream is to maintain a common nuisance. It is not only a public injury, but it is a crime, a crime for which those who perpetrate it are answerable in a tribunal of criminal jurisprudence." It certainly seems as if municipal authorities were altogether too lax, or, shall we say, too ignorant, on this matter of drainage, and every intelligent citizen would do well to inform himself on the subject, and do all in his power to counteract the stupidity of city contractors.

REPRODUCTION OF BACTERIA.

IT has been very reliably determined that bacteria, when placed in the best conditions for their activity, will double their number every hour. In most favorable circumstances it will then be seen that a single bacterium will, in twenty-four hours, produce 16,777,220 of its kind. According to the *Sanitary News*, in forty-eight hours, from this single source, the number of bacteria would amount to 281,500,000,000, a quantity sufficient to fill a pint measure, all produced in this short time from a single micro-organism measuring but 1-15000 of an inch. Fortunately, these conditions do not often exist. The reproduction of bacteria is opposed by many kinds of forces and they have a continual battle for existence. In regard to the disease producing or pathogenic germs, it is important to understand what forces or agencies will retard their multiplication or wholly destroy them. In emergencies chemistry is resorted to and antiseptics employed, but in the proper prevention of disease such emergencies should not be allowed to arise. Sunlight, pure air and thorough cleanliness are natural enemies to disease germs. They cannot flourish where they have not their proper food, and that is found in dampness, darkness, mold and filth. Keep the habitation flooded with sunshine and pure air, keep away all filth and dampness, and the germs of disease will find no foothold, no nidus in which to breed, or food on which to grow. Nature is struggling all the time to keep her domain healthful, and a fit habitation for man, but man shuts out the air and light, contaminates all things about him, and disease is the reward of his recklessness and neglect. There is more health in a sunbeam than in drugs, and more life in pure air than in the physician's skill. The sunlight may fade your parlor carpet, but better that than have disease fade your cheek. The wind may "tan" and "freckle" the face, but it is better tanned and freckled than thin and sallow. Help nature to keep your habitation healthful by allowing her forces an opportunity to operate. There is more health about you than disease. Health is man's natural condition. He has to violate some law before the penalty of disease is inflicted. He can place about him such conditions that disease germs will evade his system, or he can live amid surroundings so pure that health will bless him both in his freedom from physical ills and in the sweet consciousness of right living.

THE AMERICAN PHYSIQUE.

PROF. N. S. SHALER, writing in the *Literary Digest* on Nature and Man in America, makes the following interesting statement concerning the physical development of American men, to which we invite the special attention of all interested in physical training, as well as to those Anglo-maniacs who are forever forcing home upon us the superiority of the English and Germans:

There has been a good deal of talk about the American type of man. He is supposed to be a thinner and more angular creature than his cousins of the parent isle, and it has been held that though quicker witted and readier to fit himself to circumstances, he has less solidity and less endurance than his ancestors from beyond the seas; but although it must be admitted that our climate, as a whole, differs considerably from the conditions of northern Europe, whence our race came, and, consequently, that a certain measure of physical change in that race might have taken place in this country, yet there is ground for believing that the change, if it has occurred, is small, and is not an alteration for the worse. From a comparison of the registers of measurements made for army purposes, it appears that American soldiers are, on the whole, as well developed as those who fill the ranks of European armies. The records of insurance companies show, that the American man lives longer than men of the same race in the Old World. The ready recovery from wounds and the success of grave surgical operations during our Civil War, under circumstances which were, on the whole, less advantageous than those which attend the conduct of war in Europe, prove that the American body has more recuperative power than that of the European. The interest the American takes and the success he achieves in foot-ball and other out-door amusements, is an indication of his mental activity and physical vigor. And, lastly, the conduct of our army and people as a whole, during, as well as since the war, justifies us in claiming, that the race has certainly not lost the moral qualities that marked it in the Old World. This convergence of testimony may be safely taken to justify the assertion that the climatic and other conditions of our continent, excepting the Arctic region and the district about the Gulf of Mexico, are favorable to the development of Northern Europeans. We may, therefore, dismiss the fear that our race is to deteriorate in this country, but we must also put aside the notion that we are to be a massive and unvaried people. The present structure of our social and economic life permits rapid changes in the occupations of men, and thus makes the effect of occupation on *physique* imperceptible; but with the increase and consolidation of our population, vocations will become more hereditary, man will be employed at the plough, in the mine and in the mill from generation to generation; and then each community will bear the distinctive stamp which comes only through ancestral habit.

Letters to the Editor.

I FIND, in a recent report of the transactions of the Philadelphia Obstetrical Society (Annals of Gynecology and Pediatry for November, 1890), the following statement, made by Dr. J. Price: "The question has been asked when to use electricity. There is a simple answer to all that—never. How, when, and by whom? At no time; never, and by no one. It has no place in medicine."

These remarks, and the sentiment of intolerance which they represent, seem to me so extraordinary in a scientific discussion of the present day, that I must believe that they were made in a moment of irritation, which overbalanced Dr. Price's judgment for the moment, since they are both utterly untrue and bitterly ungenerous. That electricity has a distinct place in therapeutics—as hardly won as that of quinine, and as palpable of demonstration—hundreds of doctors and thousands of patients are ready to testify.

In certain forms of paralysis, in many atonic conditions, and in all forms of hysteria, its value is incontestible, except in heated discussion; and neuralgias dependent upon local causes will disappear more quickly and permanently under galvanic currents, properly administered, than in any other way.

Indeed, to some of us who are accustomed to daily use of electricity in medicine, Dr. Price's statements are simply absurd. We see so many patients cured by its use, of derangements that have been pronounced incurable by general practitioners, that our confidence, and, I am happy to say, the confidence of the profession at large, is steadily growing in its value as a curative agent.

Perhaps, however, Dr. Price has had too much experience with electricity in surgery—where its status is not yet fully defined—and none in medicine—where it is now used as confidently as quinine or opium; and this may explain his unfair words. Or, he may be personally unacquainted with what has been done with electricity therapeutically; or—or there may be many reasons why he should have used them.

At all events, they were calculated to do harm if uncontradicted, and I am glad to bear testimony against them. In my belief, electricity has a definite, established position in medicine; one which is steadily improving, and cannot be shaken by such remarks as those in question. WM. F. HUTCHINSON.

PROVIDENCE, R. I.

Book Notices.

MEMORIAL SKETCHES OF DOCTOR MOSES GUNN, BY HIS WIFE. With extracts from his Letters and Eulogistic Tributes. Chicago; W. T. Keener, 1889.

This book is about an interesting man; but the picture which we get is too fragmentary and detached, and the loving wife who has compiled the sketches is not, it seems to us, sufficiently in the background. Dr. Gunn was born in 1822, and his life, which extended over sixty-five years, was one long devotion to the profession which he had chosen and which he loved. Of special interest are his letters written from camp during the war, letters which give an excellent picture of the life of a camp-surgeon in Virginia. These letters, written during the hurry and interval of a busy army life, have a great freshness and charm. Dr. Gunn's two great personal characteristics were a love of horses and the power of telling a good story. The accounts of his various horses and of his love for them are highly entertaining.

Professionally, while Dr. Gunn occupied a high position as a surgeon, no great discoveries, no great experiments in original research have made his name famous. But great surgical ability, profound enthusiasm for his profession, and winning social qualities made his a household name wherever his personal contact was felt. On the whole, the impression left on our minds in reading this book, is to join in Sam Weller's "vish there vas more," although we should prefer it all in a more biographical form.

THE PRACTICAL APPLICATION OF ELECTRICITY IN MEDICINE AND SURGERY. By R. W. ST. CLAIR, A.M., M.D. 8vo., pp. vi—222—viii. Philadelphia: R. H. Andrews, M.D. (editor of the *Med. Summary*), 1890.

The author issues this book as a purely practical work—a guide for those who have neither the time nor the inclination to wade through the cumbrous mass of extraneous material found in so many so-called "text-books," works which are unintelligible to those who are not up in the integral calculus, and *au fait* in algebra all through. He has done this thoroughly; the plan is plain, the diction clear, the facts correct. The range of subjects taken up as amenable to electric treatment is long, and in some instances those who are unfamiliar with what the current scientifically applied can do, will be somewhat incredulous; they need but try, and see for themselves. He does not confine himself to one kind of battery, but gives a fair estimate of the value of many different makes; it is evident, however, that the "dry cell chloride of silver" element (Barrett's of Baltimore, Md.), is the favorite, as it should certainly be. The advantages of static electricity in its place are well shown, and it is to be hoped that his readers may be influenced by what he says in this direction, for much foolish twaddle has been spent in decrying this form of energy, not only by those who talk for talk's sake in medical societies, but by others who in popular and scientific journals make statements at once misleading to inquirers, and radically untrue in themselves. The book is a good one; and it will repay its owner even if he is up in the science of electricity. All points needing illustration are taken care of by fine electrotypes—the paper and binding are first-class, and the whole appearance is creditable alike to the author and the gentleman how issues it from his sanctum.

The Medical Digest.

FRENCH NOTES.

BY A. E. ROUSSEL, M.D.

THE USE OF THE BROMIDES ON CHRONIC METRITIS (Jules Chéron).—It is incontestible that the continued use of the bromides is of great utility in all the congestive conditions of the utero-ovarian system; it often results in marked benefit.

The author has established that the bromide of sodium acts especially on the general nutrition, that the bromide of ammonium is especially useful in cerebral excitation, and that the bromide of potassium is the best moderator of the lacito-motor function of the cord. To extinguish the reflexes arising from the genital apparatus, to combat the vaso-motor paralysis arising from the lumbar region of the cord, and of the sympathetic in the same region; in a word, to remove the uterine congestion, as well as the reflex troubles due to chronic metritis, it is to the potassium salt that we shall give preference.

It is not necessary to combine, in the case abovementioned, the bromides of sodium and ammonium with the bromide of potassium.

The medicament should be used continuously for several months, and should not go above 30 grains a day.

The formula which the author employs is the following:

℞.—Bromide of potassium ..... 300 grains.
Distilled water ..... 9 ounces.

Take a tablespoonful, or a wineglassful, after each of the two principal meals.

—*La Médecine Moderne.*

USE OF THE BROMIDES AND THE IODIDES BY MEANS OF ENEMA.—Kobner recommends the following formula for patients who cannot support suppositories :

℞.—Iodide of potassium ..... 45 grains.
Bromide of potassium ..... 35 to 45 "
Extract of belladonna..... 5 "
Water ..... 7 ounces.

M.—Mix, each time, 6 drachms of this solution with from 2 to 4 ounces of hot water; at first once a day, afterward twice daily.

Later on he increases the doses, and prescribes :

℞.—Iodide of potassium ..... 150 grains.
Bromide of potassium ..... 100 "
Extract of belladonna..... 10 "
Water ..... 10 ounces.

Seven drachms of this solution in from 3 to 4 ounces of water twice daily, by enema.

Kobner finds that by adding to each enema 5 to 10 drops of pure tincture of iodine, the mixture is very efficacious, and very well tolerated by the large intestine. He has never observed any resulting inflammation.

The author has used this method of treatment in certain hypertrophic metrites as well as in syphilitic ulcerations of the rectum which had not been ameliorated by astringents or by disinfectants.

But he has more especially employed the treatment in syphilitics who could not support the internal use of the iodides. The therapeutic action of these enemas, even in doses of from 7 to 15 grains, has been very rapid. These enemas, combined with mercurial friction, may replace all other forms of medication, and are better supported than sub-cutaneous injections.—*Gazette de Gynécologie.*

A NEW TREATMENT OF HABITUAL CONSTIPATION (Flatau).—The medicinal treatment of habitual constipation does not, generally, produce very favorable results, consequently we have had recourse, in these late years, to other methods, such as massage, gymnastics, electro-therapeutics. These methods themselves generally result unfavorably. I therefore think it worth while to point out a medicament which has succeeded very well in a series of similar cases. I insert or insufflate on the mucous membrane of the rectum a pinch of powdered boric acid. I use the above at first every two days, and later on less often. I have obtained by this proceeding remarkable cures in old cases previously treated by other means without result.—*La Médecine Moderne.*

TWO HUNDRED AND SEVENTY TWO CASES OF ALBUMINURIA (Goodhart).—The author has studied a form of congestive albuminuria observed in people who eat and drink to a great extent, and who have a hereditary gouty history. The specific gravity of the urine is increased. Complete cure by diet, hygiene, and purgatives.

In neurasthenics we occasionally find an intermittant albuminuria, probably following an attack of oxaluria or of dyspepsia.

Occasionally albuminuria alternates with glycosuria, or with an excessive elimination of uric acid.

Acute nephritis may exist without anasarca, and pass unnoticed in children.

Nephritis in scarlatina may exist for a long time without alteration of the general health.

—*Journal de Médecine.*

NEW REAGENT FOR ALBUMEN (*Pharm. Centralbl.*).—Albumen is precipitated by salicylsulphonic acid in form of a white powder with acid reaction, which becomes of an intense red color by the addition of ferric chloride. The reaction is so delicate that we may recognize 0 gr. .0005 in 10 c. c. of liquid.

Journal de Médecine.

APPLICATION FOR ANGINA (H. Rousseau).—

℞.—Borate of soda,
Chlorate of soda.....āā 30 grains.
Pure glycerine..... 120 "
Honey of roses ..... 60 "

Apply with brush, five or six times daily.

Journal de Médecine.

ANTISEPTIC TINCTURE FOR DIPHTHERIA (Osiecki).—

℞.—Tincture of ratanhy ..... 150 grains.
Tincture of benzoin ..... 75 "
Tincture of aloes ..... 45 "

Apply with brush, three times daily.

After which, the following powder is insufflated :

℞.—Tannic acid ..... 30 grains.
Sublimed sulphur,
Chlorate of potash.....each 45 "

Journal de Médecine.

APPLICATION FOR BURNS OF THE FIRST AND SECOND DEGREES.—

℞.—Tannin ..... 150 grains.
Alcohol ..... 150 "
Sulphuric ether..... 1200 "

Mix.—Apply with brush.

Journal de Médecine.

PYOKTANIN AGAIN.—Dr. F. Kubli, of St. Petersburg, has repeated Professor Stilling's experiments with pyoktanin, that is, anilin yellow and anilin violet, in the treatment of various forms of inflammation of the eyes, both acute and chronic, but, unfortunately, with very different results, as in no case did the pyoktanin solution appear to have any effect in lessening the inflammation. It was also tried, with no better results, as a prophylactic on the sound eye, where the other was the subject of acute inflammation.—*Hospital Gazette.*

ONE reason why electricity so often fails in the hands of the general practitioner is because of the inadequate apparatus made use of and the insufficient methods of application. A physician should have at his command a complete medical outfit. He should have a galvanic battery capable of giving him always 50 volts and, better, 100 volts, E. M. F. ; a good Faradic battery, and a first-class static machine. It will be well if the apparatus is so constructed that the Faradic and galvanic batteries can be combined. He should be able to use those three different forms of electricity, because it is often advisable to change from one to the other, according to the effect produced. In circuit with the galvanic current should be a good rheostat, for regulating the current, and a good galvanometer.

—Prince, *College and Clinic Record.*

PREVENTION OF "BLACK EYES."—Practitioners who number many football players or members of the Pelican Club among their patients may be glad to know of the following remedy, which an American contemporary vaunts as the "sovran'st thing on earth" for bruises of all kinds. The preparation consists of the tincture or a strong infusion of capsicum annuum, with an equal bulk of gum arabic, to which a few drops of glycerine are added. This should be painted over the injured surface with a camel's-hair pencil and allowed to dry on, a second or third coating being applied as soon as the first one

is dry. If this is done as soon as the injury is inflicted, we are assured that the blackening of the bruised tissue will "invariably" be prevented. The same remedy is recommended as having "no equal" in rheumatic stiff neck.—*British Med. Jour.*

FOR GASTRIC CATARRH.—

℞.—Argenti nitratis . . . . . gr. j.
Ext. belladonnæ . . . . . gr. iv.
Ext. opii . . . . . gr. iij.
Manæ . . . . . q. s.
M.—Ft. pil. No. xxx.
S. One pill one and a half hours after meals.

OINTMENT FOR FISSURE OF THE ANUS.—

℞.—Boric acid . . . . . 3 parts.
Chlorohydrate cocaine . . . . . 1 "
Lanoline . . . . . 30 "

To be used after thorough cauterization of the parts with silver nitrate.—*L'Union Médicale.*

TREATMENT OF GONORRHŒAL ARTHRITIS.—

℞.—Camphor . . . . . 100 grains.
Extract of opium . . . . . 75 "
Alcohol . . . . . 1 drachm.
Extract of belladonna . . . . . 75 grains.

This is to be made into a cataplasm and applied over the part from ten to twelve hours, the joint being made immobile by proper dressings.
—*Journal of Pharmacy.*

AN OPERATION FOR PROMINENT EARS.—An undue prominence and turning forward of the pinna is a very unsightly deformity that is only with difficulty overcome by the methods usually employed. Dr. Ely, some years ago, treated a case of this kind by removal of an oval vertical segment of the pinna. But Dr. W. W. Keen, of Philadelphia, has improved upon this by removing an oval piece of the skin of the back of the ear, and cutting a vertical notch only in the cartilage. The skin wound is then closed with fine sutures, a bend occurs in the pinna where the cartilage has been notched, and so the prominence of the ear is remedied. The advantage of this plan is that it leaves the ear without any scar in front—without any visible scar, in fact. The case in which Dr. Keen did this operation is recorded, and the patient figured in the Transactions of the Philadelphia County Medical Society. The operation in that case was eminently successful.—*Lancet.*

DEATH UNDER CHLOROFORM.—A case of death from chloroform, of some interest, is reported to have occurred in St. Thomas Hospital recently. The patient was the subject of pyo pneumothorax on the right side, which had lasted over a year. Portions of his ribs had on several former occasions been removed under chloroform, without the occurrence of any bad symptoms from the anæsthetic. The cavity showed signs of contracting, and the discharge was still very profuse. It was decided to explore the wound, and if possible reduce the size of the cavity by rib resection. The patient was anæsthetized, and when sufficient chloroform had been given, before the dressings were removed from the wound, his pupils suddenly dilated, and both heart and respiration ceased almost instantaneously. All efforts to restore him proved unavailing. At the necropsy the heart was found to be healthy, but had been displaced somewhat to the right side. It seems probable that the patient died of cardiac failure, the death being accelerated by the diseased condition of the lungs.—*Lancet.*

MASSAGE IN HEADACHE.—Dr. Norström, finding that a good many cases of headache occur where, though the symptoms are more or less like those of migraine, the remedies suited to that affection are of but little use, examined the heads of such patients carefully, and came to the conclusion that the pain must depend upon inflammatory thickenings existing at the insertion of various muscles, especially the sterno mastoid, the temporal, the scaleni, the trapezius, and the occipito-frontalis. These indurations do not usually produce any local pain, and therefore are generally unnoticed both by physician and patient. They are commonly the result of "taking cold," and the headaches they cause can be traced to changes in the weather. Dr. Norström obtains excellent results by regular massage of these indurated spots, the sittings lasting for about a quarter of an hour. Similar treatment is also efficacious where the headache is due, as it sometimes is, to enlarged lymphatic glands. Of course, little result can be expected from massage in headaches of anæmic or of hysterical origin, or where there is organic cerebral disease.—*Lancet.*

THE TEST OF DEATH.—It has been recently stated that a prize offered some years ago for the discovery of some means whereby the inexperienced might at once determine whether in a given case death had or had not occurred, was won by a physician who had discovered that if a light were placed behind the hand of the supposed dead person a scarlet tint would be apparent where the fingers touched each other if life was not extinct; and that if no red glow was visible death had taken place, says the New York *Telegram.* Dr. W. B. Richardson has written an essay in which he states that, although this test has its value, it is not by any means to be trusted as an unfailing indication of life or death. He gives the case of a person in a state of syncope to whom the test was most carefully applied. Not the faintest sign of red coloration between the fingers could be traced, yet the recovery of the syncope was complete, and was effected without any artificial aid. Dr. Richardson regards it as a good test, but is of opinion that more certain proofs are: The pulsation; the respiratory murmur; pressure on veins; the electric test for muscular irritability; the ammonia hypodermic test; coagulation of blood in the veins; rigor mortis and decomposition.

THE therapeutic value of climate has received more and more attention for the last twenty-five years, and its benefits are more and more clearly seen and taken advantage of; and as our knowledge is extended and more accurate, and correct observations are made as to the adaptability of the different climates to the different affections, the more benefit will be derived from this therapeutic agent.

It is a pretty well-established truism that what is curative in one person is not so in another, and this is true in climate as well as in reference to articles in the materia medica.

In my practice in the East one or two office visits, at the outside three or four, sufficed to allow the patient to dispense with his medical adviser, but not so here in the majority of cases. I also discovered the class of remedies I had used East were of little benefit here, and, in fact, in many cases actually made matters worse.

The best was a tonic course of treatment with extreme care on the part of the patient to keep from adding to his disease by "catching fresh and repeated colds." But quite a proportion of patients would not get well with any remedies, and had to be sent to the

interior—to Romona, Julian, and other places—to a higher altitude and dryer climate.

This was the experience not only of myself, but quite a number of other physicians with whom I talked. Most of these patients got relief in a very few days, soon recovered, and returned. Others had to spend a longer time for complete restoration.

—Gundrum, *Thérapeutic Gazette.*

BINIODIDE OF MERCURY.—The biniodide of mercury, in common with other salts of that metal, possesses derivative and germicidal properties which are enhanced I consider, tenfold, by its solubility in solutions of the iodides of potassium and sodium, because by the great diffusion and penetrating power of those solvents, and especially of the sodic form, every corner of the circulation can be reached by the internal administration of the germicide, and skin and mucous membrane, fascia, muscle and bone pierced to destroy any invading germs from without. This powerful germicide, carried by its penetrating sodium iodide vehicle, may be effectively used locally in the following disorders:

1. Purely local germ diseases: Ophthalmia neonatorum (1 in 3,000) and contagious conjunctivitis; gonorrhœa (1 in 5,000 to 6,000); hay asthma (1 in 2,000); alopecia (1 in 500); scabies (1 in 400 or 500); ringworm (1 in 4 or 5) and sycosis.

2. Purely local septic disorders: Ozæna (1 in 3,000 or 4,000); otorrhœa (1 in 2,000 or 3,000); pelvic abscess (1 in 2,000) and pyosalpinx (1 in 2,000 or 3,000).

3. Surgical and puerperal septicæmia from infective areas.

4. At the seat of the lodgment growth and development of specific germs (1 in 2,000). Thus in the mucous membrane of the mouth and throat in scarlet fever and diphtheria; and the nose, eyes, and air passages in measles and whooping-cough.

Internally the biniodide may be given alone in pill or powder, or in solution of the liquefacient iodide, according to the nature of the disorder under treatment. The peripheral or central site of the infecting germ area has a distinct bearing upon treatment by the biniodide. Scarlet fever for instance, in that it has origin peripherally in the tonsillary region, and is not as a rule accompanied by any internal congestion at its onset, may be aborted by the biniodide in potassic or sodic iodide; whilst measles, in having a central origin in the bronchial system, should be treated without any liquefying agents whatever, by prescribing the biniodide in powder with sugar, and giving iron with peripheral vascular stimulants, such as the spirits of nitrous ether, for in no disorder of this nature is the tendency to the development of malignancy so marked as in measles and in all morbid conditions characterized by cyanosis and any degree of collapse or asthemia, it is well known the fibrine elements of the blood are deficient.

The germicidal and anti-fermentative properties of the biniodide have proved of great service in my hands in the treatment of flatulent dyspepsia, cholera infantum, English cholera, and the green stools of infants and young children.

But the *alterative* or *derivative* uses of the drug are perhaps of even greater importance than the germicidal, because of the constant occurrence of cases of peripheral and periphero-central vascular derangement in general practice. I refer more especially to the latter, in the shape of inflammatory and chronic congestive affections of serous membranes: Meningitis, pericarditis, pleuritis, peritonitis, and neuritis. In serous membranes, as elsewhere, the inflammatory process passed through the stage of congestion, stasis, effusion of inflammatory lymph, and resolution either sooner or later.—Illingsworth, *Provincial Med. Jour.*

Medical News and Miscellany.

DR. B J. WEYLL, a well-known citizen of Camden, died last Saturday, in his eighty sixth year.

THE demand for the Koch hypodermic syringes is so great that the manufacturers are unable to fill all their orders.

THE inhabitants of St. John's, Newfoundland, appear to be suffering from severe epidemics of both measles and diphtheria, the mortality from each of which is stated to be very high.

AS a reward for Prof. Koch's services in the interests of medical science the Emperor will probably confer a title of nobility upon him. He has already been decorated with the order of the Red Eagle.

PROF. KOCH states that the government must prepare the "lymph" used in the cure of tuberculosis. He also asserts that the recurrence of tuberculosis after treatment by his method is extremely rare.

ACCORDING to the *Drug, Oil, and Paint Reporter*, the general tendency of the McKinley tariff bill, while purporting "an act to reduce the revenue and equalize duties on imports," has raised the duty on drugs ten to twenty per cent.

A THIRD Medical Clinic has been established in the University of Vienna, of which Professor Leopold Schrötter Von Kristelli has been appointed head, with the rank and title of Ordinary Professor of Special Medical Pathology and Therapy.

THE city physician of Woburn, Mass., was cowhided in his office, on November 19, by the wife of a letter carrier, who is a good sample of a well-built and athletic female. The charge made against the physician was breach of professional etiquette and slander.

ACCORDING to the most recent information, there is now a considerable abatement of cholera in Spain. Some cases still occur at Valencia; the disease has recurred between Cadiz and Jerez, and also at Murcia and the adjacent villages; but at Barcelona no fresh attacks have been heard of.

DR. MURDOCH CAMERON has recently performed his fifth successful Cæsarean section at the Glasgow Maternity Hospital. He has stated that he is engaged to perform the operation in three other cases, so that, thanks mainly to his exertions, the operation appears to be gaining the confidence of the profession in the west of Scotland.

SMALL-POX attacked no less than 483 persons and caused 202 deaths in Madrid last week; the total attacks and deaths since the beginning of the outbreak being now 1,933 and 659 respectively. In certain parts of France, and notably in Brittany, this disease is also extending, and M. Proust states that it is practically endemic in the more Breton towns and villages, where both infantile vaccination and revaccination at adult age have long been much neglected. The committee controlling public health in France have unanimously decided that the time has come to make both primary vaccination and revaccination compulsory throughout the country.

A NEW eye and ear institution has been started in New York. This makes six such in that city.

MARTIN, of Paris, says that the Cæsarean operation should be performed after dilation of the cervix and prior to rupture of the amniotic sac.

EPIDEMIC BLINDNESS.—An epidemic of blindness, probably hysterical, is reported as prevalent among the working-girls of Wheeling, West Virginia.

THE French steamer "La Normanaie," which arrived in New York on Monday, had small-pox on board. Over four hundred steerage passengers were detained at quarantine.

CRIMINAL abortion is very rife in France. All classes of society resort to it, and married as well. The unmarried get rid in this manner of their offspring for obvious reasons.

IT is said to be possible to restore one who is helplessly intoxicated to the almost complete use of his faculties in a very short time, by administering to him a half teaspoonful of ammonium chloride in a tumbler of water.

A NEW Sanatarium of the air-cure, so-called—the first of the kind in France—has just been opened with some ceremony at Vernet, in the Pyrenees. The site is said to combine the advantages of a mountain and of the Mediterranean climate.

MEDICAL students in London are compelled to go through a course of four years' study, hospital attendance and lectures, before being qualified to appear for the final examination. By an order of the General Medical Council of England the term of preparation has been extended to five years.

FIFTY-FIVE ladies practising medicine in India have presented a memorial to the Viceroy, urging that the age of consent for marriage in respect of native females should be raised to fourteen. The memorial is reinforced by notes of a number of observations in zenana and female hospital practice.

To cover defects in the bones of the skull, Jaksch transplanted plates of bone taken from the head of a goose several days old, upon the granulating dura mater. Two days after implantation, the bony plates were firmly adherent to the surface of the dura, and a week later the opening was closed by granulations.

THE AMERICAN ACADEMY OF MEDICINE.—We are requested to announce that the American Academy of Medicine, Richard J. Dunglison, M.D., *Secretary*, 814 N. Sixteenth street, will hold its annual session at the College of Physicians, Philadelphia, on Wednesday and Thursday, December 3 and 4, commencing at 10 o'clock A.M., Wednesday.

DR. J. H. MCKELLUP, who was authorized by Governor Ross to thoroughly investigate the reported existence of glanders in Texas, has forwarded his report to the Governor. It states that the only section where glanders was found to have existed was in Dewitt county, where thirteen cases occurred among horses. All the affected animals have been killed.

A HOSPITAL IN CENTRAL AFRICA.—As an instance of the civilizing work now being carried on in the Congo Free States, may be mentioned the Bangala-station hospital, in the upper Congo basin, a little less than a thousand miles from the Atlantic coast. It was erected for the employés of the station, and contains forty beds, besides rooms for convalescent patients.

IT is stated that a new journal, with the somewhat ambitious title *L' Univers Médical*, is about to appear in Paris under the editorship of Dr. Séxéno, a pupil of Dr. Apostoli's. The new periodical, and which is understood to be an outcome of the Berlin Congress, will have for its object the promotion of professional solidarity among medical men of all countries, and the furtherance of international co-operation in matters of hygienic reform.

A GOOD many people spoil the effect of a good night's rest by the ridiculously heavy bed-clothes they use. Old-fashioned cotton quilts, or modern Marsala ones, are very heavy and of no use, as a thin covering to protect blankets from the dirt is all that is really necessary. Bed-clothes should be like body-clothing—light and warm. Many a bad sleeper would do well to see whether his coverings are not at the bottom of his restless nights.

THERE could scarcely be a more striking object lesson, says the *British Med. Journal*, as to the value of vaccination if thoroughly carried out than is afforded by the example of Holland. Between 1870 and 1873 there were 20,575 deaths from small-pox in that country. A stringent law was then enacted making vaccination compulsory, with the result that the small-pox mortality has since steadily diminished from year to year. During 1890 only one death from small-pox has so far occurred in the whole of Holland.

OPHTHALMIC HINTS.—The discharge from an eye suffering from the simplest form of conjunctivitis may produce purulent ophthalmia if inoculated in another eye. Enforce the strictest cleanliness and care.

Always examine the cornea with a magnifying glass whenever there is a possibility of its being the seat of an ulcer or a foreign body.

Avoid preparations containing any salt of lead.

Never order a shade to be worn over one eye only. If one eye needs protection from light so does the other.—*Buxton.*

AN ASSAULT ON A NAVAL SURGEON IN BROOKLYN.—Dr. Delevan Bloodgood, medical director of the laboratory at the Brooklyn Navy Yard, was, on November 8, the victim of a highwayman's assault. He was knocked senseless and robbed of all the valuables he had upon his person, while returning at night to his residence near the Naval Hospital. The blow was probably given from behind by means of a sand-bag, and was only a little short of being murderous in its violence, but, fortunately, no bones were broken and no untoward symptoms have since arisen.

IMPURE ICE.—The State Board of Health, of New York, after a careful investigation of the subject, recently came to the following conclusions as to the effects of impure ice in causing disease: "Ice formed in impure water has caused sickness; it may contain from eight to ten per cent. of the organic matter dissolved in the water, and in addition a very large amount of organic matter that had been merely suspended or floating in it; it may contain living animals and plants ranging in size from visible worms down to the minutest spores, and the vitality of these organisms may be unaffected by freezing."

MÜTTER LECTURES OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.—The course of lectures on surgical pathology provided in accordance with the will of the late Prof. Thomas D. Mütter, will be delivered during 1890-'91, by Prof. Boswell Park, of Buffalo, N.Y. The first series of five lectures will be given in the

hall of the College of Physicians, corner of Thirteenth and Locust streets, on December 4, 5, 6, 8 and 9, at 8.15 P.M. The subjects are as follows: 1. Introductory; study of the blood and of some phases of the inflammatory process; thrombosis, embolism, hæmoglobin and oligochromæmia, ptomaines; conditions predisposing to infection. 2. A study of pus and of pyogenic organisms, obligate and facultative. 3. Surgical sepsis and the organisms which produce it; resumé of experimental work, surgical fever, intestinal toxæmia, sapræmia, septicæmia and pyæmia. 4. Peritonitis—forms and causes; testing the relative values of antiseptics. 5. Tetany and tetanus.

The medical profession are cordially invited to be present. D. Haynes Agnew, *President;* William Hunt, *Chairman of the Committee.*

WE agree with the *Hospital Gazette*, that the number of reports of deaths occurring under anæsthetics has, of late, been startlingly large. The figures are simply appalling. One cannot take up a paper without being confronted with the stereotyped formula, and this in spite of the laborious investigations of the Hyderabad Chloroform Commission. Unfortunately there does not seem to be any help for this state of things, and all that the public can demand is proof that due skill and care were shown in administering the anæsthetic. In the long run, however, the public will get frightened, and the practice of giving anæsthetics for trivial operations will come to a stop.

SPECIALISTS.—"Show me the man who can treat a square inch of the body perfectly, and I will show you a man who can treat the whole body well." You may, perhaps, say I am drawing an ideal. Not so; for I believe the specialist is *made*, not *born*. By this I mean that every specialist should have a *thorough* medical education, as well as a good deal of practical medical and surgical experience, before he launches out as a specialist, for otherwise how can he tell which branch he is best fitted for? The man who takes a six weeks' special course in surgery, genito-urinary disease, diseases of women, eye, ear, etc., is no more a specialist in that branch than a new-born babe.—*Southern Med. Record.*

AT the meeting of the Board of Charities and Correction at the Philadelphia Almshouse recently a letter was read from Dr. Daniel E. Hughes, the chief resident of the Philadelphia Hospital, relative to having the hospital supplied with Prof. Koch's "lymph" at the earliest possible moment, and requesting that a cablegram be sent to Berlin to secure a supply. The chief resident stated that no hospital in the country offered the same opportunities for a thorough test of what he considers a great discovery. There are now sixty-two patients ready at the hospital to try the "lymph," who would be closely watched, and progress reported daily. The board gave Dr. Hughes the power to order the "lymph," and make a test.

SOME of the Berlin daily papers warn the public against the illusions entertained by many regarding the efficacy of Koch's remedy. They also complain that the stock of "lymph" is being exhausted. The *Tageblatt* says that Koch's procedure so far is open to severe criticism, because he has only given his "lymph" to a few collaborators whom he could thoroughly trust to follow his instructions, while the great scientific establishments and hospitals are excluded from the benefits of the discovery. The *Tageblatt* considers that the dissatisfaction among medical men and the many patients who are anxious to submit to the treatment is quite justified, and declares that the present arrangements must be altered.

A TENNESSEE doctor is credited with delivering two children with a pair of shoemaker's pinchers, using the curved handles as obstetric forceps.

An Alabama doctor tells about a patient of his with neuralgia, who took a sharp-cornered rock and broke a hole through his cranium, and poured swamp water in to cool off his brain.

We have heard of an Eastern doctor, who, to be no whit behind his Southern brethren, claims to have delivered premature children with a pencil, or a branch of a tree.

We are now ready to hear from the man who performed an iridectomy with a monkey wrench, and a Cæsarean section with a buck saw. There's nothing like expedients when you are in a pinch.

PATENTS, ETC., on medical subjects, issued November 18, 1890:

Disinfecting device	A. R. Upward	London, England.
Blue dye	W. Majert	Berlin, Germany.
Blue-black azo dye	Lauch & Kahn	Elberfeld, Germany.
Making hydrogen peroxide	W. Erwin	Philadelphia, Pa.
Inhaler	Krohne & Sesemann	London, England.
Complexion mask	N. E. Jenkins	Auburn, N. Y.
Stomach bitters	H. W. Farrell	Noah, Tenn.
Obtaining oxygen	F. Salomon	Essen-on-the-Ruhr, Germany.

TRADE-MARKS.

Medicine for diseases of the liver and for chills. (The letters "A. C. S., Jr.," in the form of a symbol)	A. C. Simmons, Jr., Medicine Co	Sherman, Texas.
Cure for catarrh and lung and liver troubles. (The portrait of "Erie Tomlinson," deceased)	Tomlinson Dead Shot and Quick Relief Oil Co	Le Mars, Iowa.
Medical belt for the cure of diseases. (The words "Angel Girdle")	G. W. Angell	Newark, N. J.
Ozone-water. (The representation of two serpents and the words "Anti-bakterikon")	Ozone Mfg. Co	New York, N. Y.
Anti-febriles. (The word "Phenacetin")	Farbenfabriken, vormals Fr. Bayer & Co	Elberfeld, Germany.

LABELS.

"One Minute Toothache Cure"	L. F. Segrist	Philadelphia, Pa.
"Dr. Buxton's Cough Syrup"	F. E. Buxton	Boston, Mass.
"Dr. Welch's Gold and Platina Alloy" (for dental purposes)	The Wilmington Dental Manufacturing Co	Philadelphia, Pa.
"Standard Gold Cylinders, Style O," (for dental purposes)	R. S. Williams	New York, N. Y.

—CHARLES J. GOOCH, *Patent Attorney.*
LOCK BOX 76, WASHINGTON, D. C.

DR. J. G. ORTON, as President of the New York State Medical Association, has offered a prize of $100 for the best short popular essay on some subject connected with practical sanitation, under the following conditions:

1. Competition to be open to all.

2. Essays to be forwarded to the Secretary of the Association, Dr. E. D. Ferguson, Troy, N. Y., not later than August 1, 1891, accompanied by the name of the author under separate seal.

3. Examination and award to be made by a committee appointed by the Council of the Association.

4. The successful essay to be read at the next annual meeting of the Association, and, if approved by the Council, to be offered for publication in the secular press, and issued in tract form or otherwise for general circulation.

5. Authors of essays, unsuccessful as far as the prize is concerned, but found worthy of special commendation, to receive intimation as to a proper disposition to be made of them.

BONES.

An Osteological Study.

I'm trying hard my bones to read,
And o'er their forms to ponder;
But every time I sit me down
My thoughts begin to wander.

Now first of all I take my skull
(For that I'm very dull in),
But very quickly I find out
That I'm no good at sculling.

Each diff'rent kind of vertebra
To my poor mind a tax is;
For in the atlas there's not marked
The outlines of the axis.

Now, Quain I have thee "on the hip,"
I think you are to blame, Sir;
The bone that's called innominate
Must surely have a name, Sir.

The ankle bones are seven in all,
In fact there's quite a parcel,
Then follow five which got their name
Because each met a tarsal.

They say there are no funny bones,
Yet queer ones are so numerous
That I am not surprised to find
At least there's one called humerus.

H. W. LANE, in *Hospital Gazette.*

HERMAPHRODITISM.—Dr. C. W. Fitch reports in the *New York Med. Journal* the following interesting case of hermaphroditism: "The case was brought to my notice by the commandant of police of San Salvador, Salvador, C. A., while I was in charge of the sanitary service of said Government. As it is a unique case, I should like to have it reported, with a view of ascertaining whether a similar case has ever been seen. J. H., a house servant of masculine features and movements, aged twenty-eight, height five feet seven inches, weight one hundred and thirty-nine pounds, was arrested by the police for violation of the law governing prostitution, which compels prostitutes to register with the Direction-General of Police, and pass a weekly examination by a surgeon detailed for that purpose. On examination, both female and male organs of generation were found in a remarkably well-developed condition. The labia majora were of normal size, but flattened on their anterior surface. The labia minora and the hymen were absent. The vagina was spacious, four inches and a quarter long anteriorly, and six inches posteriorly. The os uteri was torn on the left side. There was profuse leucorrhœa. Seven years before, she had given birth to a normal female infant. In place of the clitoris there was a penis which, when in erection, measured five inches and a quarter long by three inches and five-eights in circumference. The glans penis and the urethra were perfectly formed. The scrotum, which was two inches and an eighth long, contained two testicles about an inch in length and two inches and a half in circumference. The mons Veneris was sparsely covered with short, straight, black hair. Both sets of organs were perfect in their functions, semen being ejected from the penis, and the ovaries being capable of producing eggs. Scanty menstruation occurred every three weeks, and lasted but two days. Sexual gratification was said to be equally distributed between the two sets of organs.

"Up to about seven years before, masculine clothes had been worn, but when pregnancy became apparent, the local authorities compelled a change to female attire."

TO CONTRIBUTORS AND CORRSEPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy and Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from November 10, 1890, to November 17, 1890.

By direction of the acting Secretary of War, leave of absence for three months is granted Captain Charles M. Gandy, Assistant-Surgeon U. S. Army, Fort Clark, Texas. Par. 10, S. O. 266, Headquarters of the Army, A. G. O., November 13, 1890.

Leave of absence for one month, to take effect on or about the 15th instant, is granted First Lieutenant Freeman V. Walker, Assistant Surgeon, U. S. Army, Fort D. A. Russell, Wyoming. Par. 3, S. O. 85, Dept. Platte, November 11, 1890.

By direction of the Secretary of War, the leave of absence granted Major Stevens G. Cowdney, Surgeon, in Special Orders, No. 112, October 24, 1890, Department of Arizona, is extended fifteen days. S. O. 263, Headquarters of the Army, A. G. O., Washington, November 10, 1890.

By direction of the Secretary of War, the extension of leave of absence on account of sickness, granted Major Henry McElderry, Surgeon, in Special Orders, No. 214, September 12, 1890, from this office, is further extended two months on surgeon's certificate of disability. Par. 28, S. O. 263, A. G. O., November 10, 1890.

Changes in the Medical Corps of the U. S. Navy for the week ending November 15, 1890.

OWENS, THOMAS, Surgeon. Ordered to the Museum of Hygiene at Washington, D. C.

MARTIN, H. M., Surgeon. Detached from the Receiving ship "Wabash," and ordered before Retiring Board.

RIXEY, P. M., Surgeon. Continued in charge of Naval Dispensary at Washington, D. C., until November 20, 1890.

GREEN, E H., Past Assistant-Surgeon. Promoted to Surgeon, November 10, 1890.

SMITH, HOWARD, Surgeon. Placed on the Retired List, November 10, 1890.

EDGAR, J. M., Past Assistant-Surgeon. Ordered to the U. S. S. "San Francisco," November 10, 1890.

SPRATLING, L. W., Assistant Surgeon. Ordered to the U. S. S. "San Francisco," November 10, 1890.

WHITE, CHAS. H., Medical Inspector. Ordered to the U. S. S. "San Francisco," November 10, 1890.

SCOTT, HORACE B., Past Assistant-Surgeon. Placed on the Retired List, October 31, 1890.

ASHBRIDGE, RICHARD, Past Assistant-Surgeon. Surveyed and sent to hospital, Philadelphia, Pa.

KENNEDY, R. M., Assistant-Surgeon. Detached from Navy Yard, League Island, and ordered to U. S. Training ship "Richmond."

ATLEE, L. W., Assistant-Surgeon. Ordered to the Navy Yard, League Island, Pa.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service for the three weeks ending November 15, 1890.

CARTER, H. R., Past Assistant-Surgeon. Granted leave of absence for fifteen days, November 14, 1890.

GUITERAS, G. M., Assistant-Surgeon. Granted leave of absence for thirty days. October 29, 1890.

HUSSEY S. H., Assistant-Surgeon. To proceed to South Atlantic Quarantine Station for temporary duty. October 28, 1890.

GEDDINGS, H. D., Assistant-Surgeon. Granted leave of absence for fourteen days. November 14, 1890.

GROENEVELT, J. F., Assistant Surgeon. To report to the Superintendent of Immigration for temporary duty. October 28, 1890.

The Times and Register.

Vol. XXI, No. 23. NEW YORK AND PHILADELPHIA, DECEMBER 6, 1890. Whole No. 639.

PAGE

ORIGINAL ARTICLES.

CUPRIC ARSENITE FOR AFTER-PAINS. By Boardman Reed, M.D., Atlantic City, N. J. 519
THE PSYCHICAL ASPECTS OF INSANITY. By John Shrady, M.D., New York - - - - - 521
THE RELATIONSHIP OF THE NASO PHARYNGEAL DISEASE AND CATARRH OF THE MIDDLE-EAR. By D. Emmet Welsh, M.D , Grand Rapids, Mich. - - - - - - 522
NASAL REFLEXES. By A. B. Thrasher, A.M., M.D., Cincinnati, O. - - - - - - 524
NOTE ON THE USE OF TINCTURE OF CAPSICUM AS A COUNTER-IRRITANT. By P. S. Donnellan - - - - - - - - - - - - - 524

SOCIETY NOTES.

PHILADELPHIA ELECTRO THERAPEUTIC SOCIETY - - - - - - - - - - - - - - 524
Electrical Treatment of Infantile Palsy. *Willits* - - - - - - - - - - - - 524

THE POLYCLINIC.

Whooping cough. *Monti* - - - - - - - 525

PAGE

Iron, Glycerine, and Chlorate of Potassium Mixture - - - - - - - - - - - - - 525
Treatment of Ozena. *Baratoux* - - - - - 525

EDITORIALS.

DR. KOCH'S REMEDY FOR TUBERCULOSIS - 526

ANNOTATIONS.

The Treatment of Burns - - - - - - - - 529
Empyema - - - - - - - - - - - - - 529
American Medical Education - - - - - - 529
Saliva for Warts - - - - - - - - - - - 529
In Favor of Cæsarean Section - - - - - - 529
Treatment of Aneurisms - - - - - - - 529
Sulfonal - - - - - - - - - - - - - - 530
Baby Farming in Poland - - - - - - - - 530
Slaughter Houses and Their Abuse - - - 530

PAMPHLETS - - - - - - - - - - - 531

THE MEDICAL DIGEST.

FRENCH NOTES. *Roussel* - - - - - - - 531
Treatment of Tubercular Laryngitis. *Moure* - - - - - - - - - - - - - 531

PAGE

Biliary Fistula. *Fairley* - - - - - - - - 531
Hamamelis and Alcohol in the Treatment of Nasal Polyyi. *Griffin* - - - - - - - 531
Habitually Moist Feet. *Jamison* - - - - - 531
Chronic Constipation. *Flatau* - - - - - 532
Wry-neck. *Annandale* - - - - - - - - 532
Paraldehyde as a Cause of Albuminuria. *Goodman* - - - - - - - - - - - - - 532
Antiseptic Precautions in the Hygiene of Newborn Infants. *Epstein* - - - - - - 532
Inflammation of the Vermiform Appendix. *Schwartz* - - - - - - - - - - - - - 532
Neuritis of the Viscera. *Ferguson* - - - - 533
Albuminuria in Children. *Seyournet* - - - 533
Vulvar Œdema Complicating Pregnancy. *Ayers* - - - - - - - - - - - - - - 533
Treatment of Tubercular Joint Disease. *Cheyne* - - - - - - - - - - - - - - 534

MEDICAL NEWS AND MISCELLANY, 535

ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - 536

NOTES AND ITEMS - - - - - - iv, xv

Original Articles.

CUPRIC ARSENITE FOR AFTER-PAINS.

BY BOARDMAN REED, M.D.,
ATLANTIC CITY, N. J.

THE arsenite of copper has recently won a place as a remedy of value in certain neuroses and other affections of the alimentary canal. I herewith submit a report of six cases in which it was administered for the after pains following labor. In four of these it acted very favorably, in one effected slight improvement, and in one failed entirely.

CASE I.—A married lady, aged thirty-two years, after her fifth confinement in February, 1889, had most persistent and severe after-pains, which resisted entirely all the usual remedies. Quinine, cimicifuga, paregoric, and finally morphine were tried in succession, the last in full doses, without affording more than temporary relief. The trouble had gone on some five days, and was seriously menacing the patient by interfering with her rest and nutrition, when I happened to think that the arsenite of copper, in minute doses, having shown in my hands remarkable antispasmodic virtues, in colics and cholera morbus, might be of service in these evident spasms of the uterine muscle. I ordered it in about 1-1000 grain dose every half hour, with the result of a rapid and complete relief. The pain soon ceased entirely and did not return thereafter.

CASE II.—August 2, 1890, I attended Mrs. G., aged thirty-seven years, in her sixth confinement. Labor was normal in every way, and of short duration. Some six hours subsequently the patient had a fainting attack, due mainly to the fact that, following out the prejudice of former days, her nurse gave her no supper, except a cracker and a cup of tea; and the further fact that the members of her very numerous family and connection insisted on congratulating her up to the hour of midnight, and thereby greatly fatigued her. Rallying from the attack of syncope, she complained of after-pains, which, for two days, distressed her greatly. Paregoric was first given, and this afforded her only slight relief. Morphine was tried in full doses, with only temporary amelioration of the pains. The trouble proving so obstinate, I bethought myself of the arsenite of copper. Two of Wyeth's tablets of 1-200 grain each were dissolved in a small half tumbler of water, and one teaspoonful was given every half hour. This was at my first visit, at 11 A. M; at the evening visit the patient reported that the pain had been speedily cured, and she had been free from it the greater part of the afternoon. It did not recur.

The patient in each of the foregoing cases was somewhat nervous. There can be no question that the relief afforded was *propter hoc* and not merely *post hoc*, since it followed so closely on the administration of the remedy, and proved lasting. It may interest many busy practitioners to learn that so simple and, in suitable doses, so harmless a medicine, can prove so efficacious, even after our powerful, but much abused old friend, morphine, has failed.

CASE III.—A married lady, aged thirty-six years, during her fifth pregnancy became affected with albumenuria. In August last at about the seventh month she was delivered of a dead child after a short and not difficult labor. After-pains came on at once, and somewhat severely. Owing to the condition of her kidneys, opiates were contra-indicated, and I resorted at once to the arsenite of copper, giving her, as before, about 1-1000 grain every half hour. She was promptly relieved and the pains were controlled so long as she took the medicine. During the night this was suspended, and, as a consequence, the pains returned in full force the next morning. She then resumed the medicine with the same palliative effect as on the previous day. It was kept up more or less regularly during the day, and controlled the

pains so completely that she made no further complaint about them.

CASE IV.—Mrs. B., aged twenty-four years, pregnant for the second time, was delivered August 20, at term, of a large boy, after a phenomenally short and easy labor. Dr. W. B. Stewart, my assistant, was summoned to the case first and, after my arrival, assisted me in the management of it. After-pains coming on sharply soon after delivery, I administered the arsenite of copper in substantially the same manner as already detailed in the previous cases. When Dr. Stewart made a second call, late in the evening, he found that only partial relief had been obtained. The pains had been rendered somewhat less in severity and the intervals between them lengthened after the administration of the remedy; but the patient, who was an over sensitive lady, was still much disturbed by them. Dr. Stewart, therefore, increased the dose in the hope of obtaining greater effects. Next morning, the pains still giving her some trouble, morphine was administered with entire success.

CASE V.—A married lady, aged twenty-eight years, was attended by me in her third confinement. Labor was extraordinarily rapid—the first stage lasting only two or three hours, and the second stage only a few minutes; the child, a thirteen-pound boy, having been born before I arrived. There was a considerable tear of the perineum, which I closed at once. After-pains came on in a severe form, shortly after delivery, and persisted, in spite of my usual doses of the arsenite of copper, until full doses of chlorodyned were taken.

It is noteworthy that, in case five as well as in case four, the tablets of the arsenite employed were of a new lot, from a different manufacturer. It was found very difficult, indeed almost impossible, to make them dissolve, and this may account for the failure of the remedy in these cases.

The following case has been kindly contributed:

CASE VI, by W. B. Stewart, M.D.—On September 7, 1890, I was called to attend Mrs. B., a colored woman, in her fifth confinement, and delivered her of a large girl baby. She began to complain of after-pains shortly after the labor was over, and they became so severe that relief was necessary. I dissolved $\frac{1}{100}$ grains of the arsenite of copper in a half tumbler of water, and gave her one teaspoonful every ten or fifteen minutes. After the third dose the pains were very much relieved, and the next morning the medicine was discontinued, as the pains had ceased to be annoying. They have not sinced returned.

We need a greater variety of remedies for pain, and should welcome additions to the number of those that can be safely administered for its relief. So far as has yet appeared, I was the first regular physician to make a systematic trial of the arsenite of copper in spasmodic pains—especially colic and cholera morbus. My results were communicated to my friend, Dr. John Aulde, of Philadelphia, Pa., and led him to make a trial of the drug, as was kindly mentioned by him in his first papers on the subject. Dr. Aulde deserves all credit for first calling the attention of the profession to this important remedy. He has since written it up so extensively and industriously that it is now a generally recognized therapeutic agent, and already finds a place in the catalogues of our manufacturers of those elegant and convenient little pharmaceutical preparations known as tablet triturates.

Many other physicians in this country, and some very prominent ones in Europe, have since used the drug successfully, and reported their results. So far as I have observed, however, no one of them has yet given an explanation of the *modus operandi* of small doses of arsenite of copper in curing vomiting, diarrhœa and violent colicky pains in the alimentary canal, as well as cramp pains in other parts, when the physiological effects of the remedy are known to be violently irritating.

The arsenite of copper contains, in each 100 parts, 52.8 parts of arsenic and 33.8 parts of copper. The choleraic effects of toxic doses of arsenic are familiar to all. As to copper, which constitutes more than one-third of the drug, Prof. H. C. Wood's Therapeutics is authority for the statement that it causes "violent vomiting and purging, accompanied by severe colicky pains;" and Blyth, in his work on "Poisons," names, among its effects, besides vomiting and purging, such "affections of the nervous system as spasms, cramps, paralysis and even tetanus."

Now, as the gentlemen who have been writing so ably about the arsenite of copper have, so far, not explained how the small doses employed have exerted curative effects directly opposite to those well-known to results from toxic doses of the same and of its constituent metals, there is danger, on the one hand, that many physicians will disbelieve the reports; and, on the other hand, that our Homœopathic brethren will claim the cures as exemplifications of their incomprehensible and altogether unscientific dogma of *similia similibus curantur.*

Hence, it seems to me wiser to explain that all such curative effects of comparatively small doses of medicines, including the familiar use of two-grain doses of quinine as a tonic, when drachm doses of the same will depress and almost paralyze the nervous system, are instances of the general principle that all tissue-disturbing remedies, whether drugs, massage, electricity or hydropathic measures, are capable of exerting two opposite effects according to the dose administered. The effects of the small dose are opposite or antagonistic to the effects of the large dose, and, therefore, antagonistic to such diseases or lesions as are capable of being produced by the large dose.

For instance, large doses of quinine are capable of causing profound debility. Therefore, small doses of quinine may be depended upon as a remedy to antagonize and thus cure debility. In like manner digitalis, in the largest doses, or pushed too long even in moderate doses, is capable of depressing the heart, finally, as demonstrated by Nothnagel and Rossbach, causing it to stop, in the case of warm blooded animals, "paralyzed in diastole." Therefore, small or moderate doses of digitalis, not continued too long, may be depended upon to antagonize cardiac weakness. There is no *similia similibus* about it, but always *contraria contrariis.* All of us are constantly using scores of remedies in this way, and the same may be said of the physicians who practised hundreds of years before Homœopathy was invented.

The subject of the twofold action of medicines was fully discussed by me in the *London Practitioner* for April and May, 1888; in the *Therapeutic Gazette* for October, 1888; and in the *Medical and Surgical Reporter* of November 24, 1888.

DR. LASSAR, Secretary of the Tenth International Medical Congress, ran away from Berlin to escape the consequences of treating the Empress badly while conducting her through the exhibition. It is also said that his official statements were incorrect. Lastly he is said to be insane.

THE PSYCHICAL ASPECTS OF INSANITY.[1]

By JOHN SHRADY, M.D.,
NEW YORK.

SOME one has said that in nature there is no such potentiality as uniformity, that even two clover leaves are not alike, and how, in speaking of the human race, can a divergence or exception to a condition like this be expected? Each individual, then, has a tendency which forbids a copy or imitation, and by this he is recognized even though he may have been brought under the influence of the identical surroundings of his brother or neighbor. Police officials say that every criminal has his style. Hence, why need a reference be made to the various recognizable scripts of the pupils trained by the same master? These are truisms which are readiest at hand. These are the signatures which to the individual are as the symbols of the mathematician—convenient condensations of long statements.

A further step in the argument may be taken by granting that there can be no standard of capacities or individuals, for what might be the acme in one could not well be in another. Still less can mind itself be measured, for who can pronounce upon a man's best work? The same may be said of moods or impulses—the one being a prolonged, the other only a fitful, evanescent condition. What the world may regard as a masterpiece may not be accepted as such by the author. Milton, for instance, ranked his "Paradise Regained" much higher than his "Paradise Lost," and honestly held to that opinion to the very last. So of others in the various walks of the arts and sciences, even where painstakings are to be taken as the criterion of excellence.

Now for the consideration of the individual. Horace Greeley is credited with the remark that the only truly honest man was the egotist—in that he feared not to express his convictions, which were to the effect that he was really the center of the universe, and that these ideas of a person's importance, though in the main unuttered, were inherent in all. This, however, is to be set down as only a partial truth, inasmuch as many are swayed by the opposite temper of the mind—self depreciation. For the better understanding of these manifestations it is necessary to concede that man begins as an infant, in whom the ambition of supplying the immediate wants of the animal is paramount. Self wields the sceptre, and if there be an arrest of mental development this will probably continue until the end.

With an individual thus in constant communion with himself there is no conception, or at least no adequate one, of the rights of others. "After me, the deluge," is the phrase which exactly characterizes the motives that actuate this class of persons, who care neither for the comforts nor for the comments of their neighbors. Here is to be found the gem of future trouble. It matters nothing whether the service is through love or fear, self is ministered to, and that is the highest expectation—it is the subordination of the will of others in tribute or acknowledgment of our own supremacy that constitutes the aim. Society, in spurning these attempted encroachments upon its eminent domain, will not yield a jot of its rights, but in various ways compels the surrender of the individual.

Now, let these habits of thought regarding individual importance prevail indefinitely, or become a demeanor of the mind, unmixed with other motives and entirely independent of them, and you have the beginnings of the invitation to insanity. Verily, can this be claimed without a challenge? As a more accurate statement, should it not be said that these may be the manifestations of the first departure from sanity? To these succeed delusions which keep self still dominant and exacting. Those symptoms, although not pronounced at the start, are capable of unlimited development. They require, however, to be indisputably chronic before they are generally accepted, for, as a rule, the world does not come in these cases to a hasty decision. If at all, the error is on the side of explanation, and invariably the judges are loath to accede to a conviction without facts.

But these suspects now under discussion require watching, and the prognosis is at all times beset with doubts. The retrospect, as usual, is a great expounder, and for this very reason observers delude themselves into the notion that it was prescience that begot the opinion and legitimatized the reason. Therefore, in view of these difficulties, when called upon in a case, which in a legal phrase is known as "de lunatico inquirendo," the process of examination should be subjective—the individual, as such, should never be permitted to escape mental scrutiny. He should be treated as one whose pivotal point was self-love; this is a means of gaining his confidence, so that his hallucinations may be brought to the surface. His fancies are to be humored, his lines of thought encouraged, and his vanity flattered, in order that, elated with having gained a proselyte, he may rise to the stature of a propagandist.

Not that it is necessary to descend to the arts of the detective, but that the process of unbosoming may be as complete as possible, for, be it remembered, that only by words is conviction to come. The suspect, however, has a deal of method in his madness—he wears a panoply of shrewdness and is marvelously alert—he may take refuge in reticence or in paradox, and thus interview after interview may be brought to naught. Very often the examiner himself is cross-examined, and makes at best a very sorrow witness.

Now, in the present consideration of the subject, all somatic problems are, of course, eliminated as tending towards confusion—the dealing is with the outline, not with the picture—with facts, such as are to be garnered for the use of the judge—he is to possess the wherefore. Furthermore, one point is to be kept steadily in mind, that as the functions are to the body so are the motions to the mind. Perhaps the exception that the emotions are more complex in their workings and less direct in their offices may be allowed. Again, they may be more difficult of analysis, inasmuch as the focus is at the wrong end, the divergent rays presenting themselves only as a glare to the bewildered vision. The emotions, too, are capable of an indefinite development and of a concentration, challenging conception. A certain passion may tyrannize over all the rest, and in its loyalty to self be perfectly consistent in its reign. To detect this element of discord often taxes the craft of the examiner to the utmost.

As civilization, according to a writer on the causes of lunacy, contributes to the exaltation of the individual responsibility, so also does it impose an individual wreckage. The friction is the result of the complicated machinery. There are more comforts, but there is greater strife. In savage life there is more communism, and the government being practically paternal, the responsibilities are reduced to a minimum, so that the rights of the few yield to the

[1] Read before the New York State Medical Association, October 24, 1890.

expediencies of the many. The brief hour fumings become merged into the melancholy and mania of the individual victim. The person becomes the center for all kinds of delusions, running the gamut from self-exaltation to self-depreciation. As has been before inferred, investigations are, therefore, to run along these lines.

It cannot but be conceded that it is difficult to follow a principle without the idea of a personality, hence the borrowing of analogies from the external and the palpable. Treated as entities, passions in conflict lay at the root of the ancient mythologies, and thus the vagaries of the lunatic were clothed with personified attributes. The developmental theory is to be followed through its ramifications. There is to be a pitting of motives, one against the other, the degrees of passions are to be followed as the acts of a tyrant. The stages of admiration are to be traced clean through up to the zenith of adoration, self depreciation onward to suicide, rage to murder, politics to supreme control, love to complete ownership, and ambition to omnipotence.

If reason and a respect for the rights of others assert themselves, even to a degree, the disillusion comes, and despair becomes an inseparable spectre. There is a deal of truth in the swing of the pendulum, so often used as a figure of speech. The gentle Ophelia sings ribald songs, which a modern audience will not tolerate, even though linked to an exquisite melody. Hawthorne effectively uses it in his "Scarlet Letter," when he makes the guilty clergyman yearn to hiss oaths into a sailor's ear. The culprit carries to the verge of the gallows the burning wish to "die game." Since he has failed in the matter of reputation, he is content to pass its counterfeit of notoriety. The officer in disgrace falls upon his own sword, even as the hero accepts martyrdom, without a murmur. But these are samples only of a degree; carry them into insane or criminal life, and how deplorable the consequences! The murderer reasons that the penalty for the added crime of suicide can be no greater, and the charity of the moralist suggests that only his premises were wrong and his logic at sea.

The majority of mankind, in their disinclination to think, content to be led merely by vagaries, soon lose their power of will, and are quite willing to be driven by every wind of doctrine. Let them be impressed with the idea that it is impossible for them to err, and they soon drift into the delusions of grandeur. Will has then no control; consequences are disregarded, and thus a mission subconsciously created waits for a denouement. Self-complacency may be classed as a leading mental feature of the insane, and, when the loss of self-regulation be added, they may be regarded as utterly hopeless cases. This acceptance of their lot may be regarded as a symptom of evil import. Henceforth no amount of rational appeal can be expected to be effectual. As somatic causes produce delirium, coma, and paralysis, they have not been considered in the discussion; so, also, the forms of brain deterioration. The dealing has been with the symptoms, not with the pathology.

In treatment, the principles of Dr. Chalmers' phrase, "the expulsive power of a new affection," should be followed out; in other words, one mood should crowd out another and more dangerous one. This was the father of the idea of substitution, based upon the fact that recreation came from the alternating rest of opposing muscles. Concentration upon any given subject of contemplation is to be avoided, diversion being the rule. Nothing can be expected from medication in its restricted sense, because hygiene and variety of employment or amusements constitute by far the best course. These are the principles which govern the management of the insane in the asylums of civilized life, and many are the devices to turn the currents of thought from channels that are worn and grooved.

THE RELATIONSHIP OF NASO-PHARYNGEAL DISEASE AND CATARRH OF THE MIDDLE-EAR.[1]

By D. EMMET WELSH, M.D.,
GRAND RAPIDS, MICH.

THE relationship existing between naso-pharyngeal disease and catarrh of the middle-ear is intimate and inseparable. The ear depends upon a healthy condition of the nares and naso-pharynx for the healthy performance of its function. Ophthalmology and otology have long since gone hand in hand; yet they have nothing in common, and their association is erroneous; but to ally otology with rhinology would be furthering the advance of medicine and the successful treatment of diseases of the middle-ear would be more ably accomplished. Thus, the pathological connection of these branches could be better subserved, and a more favorable prognosis given our patients.

Laryngology, as applied, has been considered to include rhinology, yet this is of sufficient importance to stand alone, or rather in a coördination of these fields, for the laryngologist cannot be successful if he eliminates bronchial conditions from his domain. Patients presenting themselves for the treatment of ear diseases, always give the story of catarrh. Where located? in the nose and throat, and date their primary impairment to this condition. Therefore it becomes necessary for us not only to become familiar with the speculum, the rhinoscopic mirror, the turning fork and catheter, Politzer bag, etc., but also to be able to detect the diseases of the nares and naso-pharynx, its inflammations, obstructive lesions, and their removal. It is not only incumbent upon the physician to be able to detect the more pronounced abnormalities of the nares and naso-pharynx, but he must be able to detect the slightest deviations, and correct them as well.

The existence of a spur on the septum may be the means of exciting a tinnitus aurium, and how useless direct medication would be to the ear without its removal. It would be entirely erroneous for the rhinologist to ignore the large number of aural complications he meets with in daily practice. This is very apparent indeed when we consider that the large proportion of abnormal changes that take place in the ear result from those diseases of the naso-pharynx which produce narrowing or obstruction of the Eustachian tube. The rhinologist and otologist have waged war against each other, and each claiming a protectorate in his own particular "ism;" the former by his treatment alone, and directed especially to the naso-pharynx, has obtained success; the latter, condemning him in that failure has occurred, due to unfamiliarity with other diseases of the ear; hence it is better, and our results more satisfactory if the medication is applied conjointly to the nares, naso-pharynx and ear.

In all cases conservatism should prevail, and if failure accrues, it is then that our surgical means

[1] Read before the American Rhinological Association, October 6, 1899, Louisville, Ky.

may be of avail, by not only restoring the parts to a normal condition, but acting as aids to hearing and as a prophylactic agent in removing the cause and giving immunity to recurrent attacks.

Repeated attacks of otitis media can be found in causes directly referable to some mechanical obstruction or inflammatory condition of the naso-pharynx. Its relief is dependent upon this causation, and its treatment plain. Yet how often do we find that this is not detected, and the uselessness of direct medication to the ear is patent. This is best illustrated in cases of children, who, after suffering from recurrent attacks of otitis media, are presented for examination and treatment, when, on inspection, the membrana tympani are found inflamed, the child suffering from difficulty in breathing, mouth-breathing predominating, the nares inflamed, and an adenomatous growth existing at the vault of the pharynx. All treatment with a view to correct the inflammation of the ear is useless, and our only plan is to medicate the nares and naso-pharynx. It is of little importance what plan is pursued in these cases, be it the cautery or snare, curette or spray medication, but the lesson taught is their relationship and acting as coördinates or dependents in the results to be obtained. Some writers claim that from atrophic rhinitis most cases of chronic non-suppurative catarrh of the middle-ear develop.

But in this, the climate of western Michigan, where the changes are sudden and frequent from dryness and moisture, atrophic rhinitis is rare, and instead we find a form of rhinitis characterized by excessive secretion of mucus or muco-pus and a chronic inflammation of the membrane. This, in middle and adult life, is so continuous and gradual that whilst the impairment of the sense of smell diminishes, it remains unattended until they perceive a defect in hearing, when, on inspection, the above condition is found, and this defect is due to an extension of the inflammatory process along the course of the Eustachian tube, and further the condition is not thought of, save in connection with an acute or subacute naso-pharyngeal inflammation. Whereas in middle life and childhood you will find enlarged tonsils, adenoid vegetations at the vault of the pharynx or a more diffused form of hypertrophy of the mucous membrane, and this condition extending or continuing, secondary lesions of the labyrinth occur and destroy the healing power altogether.

The nasal passages being free from obstruction, the acts of breathing, yawning and respiration aid in properly ventilating the middle-ear, restoring the equilibrium of the internal air and external atmospheric pressure which is essential to perfect hearing; but when obstruction does occur, the acts just mentioned produce a rarifaction of the air in the middle-ear, and its effects are similar to that produced by obstructions of the tube, and it is important that this be observed and operative procedures instituted for its relief.

There is another condition whose factor plays an important rôle in naso-pharyngeal inflammation, barring those conditions which primarily had their origin in a proliferative inflammatory condition, producing a great increase in the connective element, and finally ending in contraction and hardening of the same, thus causing sclerosis, and that is the use of tobacco.

The nares and naso-pharynx, on inspection, are free from obstructive lesions; yet the membrane is found to be passively inflamed with isolated points of a scarlet color, and with that exists the history of excessive smoking and the expulsion of the smoke through the nares and the possible use of stimulants; to this is added the constitutional effects of the tobacco poison, causing a disturbance of the vaso-motor centers, and thus rendering them more susceptible by this addition to the disturbing element, and from this effects are produced upon the ear similar to amblyopia and amaurosis.

It is therefore our duty to seek further in the causation of catarrh of the middle-ear, and to regard it as a factor or a local expression of a remote disease which is dependent upon an already existing naso-pharyngeal irritant, inflammation or obstructive lesion, and whose relief is dependent upon the conjoined medication of the naso-pharynx and middle-ear.

REPORT OF CASES.

CASE I. Mrs. B., aged thirty-five years, consulted me September, 1885, for deafness, saying that it had gradually developed for four or five years, and at times she could hear fairly well until the present time; that she was now unable to hear the watch tick on contact with the ear, and was greatly annoyed by roaring sounds in the ear. There was also difficulty in breathing, she being compelled to breathe almost entirely through the mouth. The throat would become dry, and at night she suffered from attacks of coughing, and in the morning suffered from a dull, heavy headache. On examination of the nares, I found partial stenosis of the left side with almost complete stenosis of the right side, being able to pass a very small probe along the floor of the nose to the pharynx. This mass of tissue filled the nares from the lower part of the inferior meatus to the superior; while, on the left side, the upper part of the inferior and middle meati were involved. This mass was fibroid in character, very dense and firm.

The membrana tympani was retracted and opaque, without any inflammatory deposits upon the same. I cocainized the right naris and passed a long narrow knife through the center and found it extended to the posterior portion of the middle meatus, when, on using the larger knives, I removed the mass completely, and, after several months, I did the same to the right side. When the resultant inflammatory condition subsided, I treated the ear by the Politzer method, and the hearing was restored. From hearing the watch ticking on contact she could hear it at twenty inches, with subsidence of the tinnitus aurium.

CASE II. Dr. C. consulted me two years ago, suffering from a violent tinnitus aurium and partial deafness. When, on inspection, I found naso-pharyngeal inflammation, no diffuse, but points of isolation, particularly in the pharynx. The membrana tympani showed nothing abnormal; watch heard four inches.

The doctor suggested that possibly it was due to frequent smoking, as on a previous occasion this had occurred after visiting the clubs and indulging in frequent smoking. To ascertain if this was the exact cause, I advised the local treatment of an alkaline solution to the naso-pharynx and omitted medication to the ear. This was done, and in a short time the hearing returned to its normal condition, and since then, whenever an excess in smoking occurs, the above symptoms are reproduced, which subside after the disuse of tobacco.

DR. MACKENZIE says that a solution of two parts of tannic acid and one part of gallic acid will stop any hemorrhage after excision of the tonsils.

NASAL REFLEXES.[1]

By A. B. THRASHER, A.M., M.D.,
CINCINNATI, O.

THE multiplicity of symptoms attributed by the modern rhinologist to nasal reflexes has caused not a little opprobrium to fall to the lot of the specialist.

Among the affections attributable to intra-nasal lesions are: Asthma, hay-fever, cough, spasm of glottis, gastralgia, dyspepsia, tumefaction and redness of skin of nose, œdema of conjunctiva, conjunctivitis, photophobia, epiphora, asthenopia, glaucoma, scotoma, salivation, cardiac palpitation; disorders of smell, taste, hearing and sight; huskiness of voice and aphonia; exophthalmic goitre, rheumatic pains, vertigo, choræ, epilepsy, melancholia, agoraphobia, aprosexia, neurasthenia, migraine, cephalalgia, neuralgias, nocturnal eneuresis; many uterine disorders, affections of the genito-urinary mucous membrane, etc., etc.

Many of the affections are not true reflexes, but are caused by blood pressure, or by extension of inflammation by continuity of tissue, or in some other way not reflex. The specialist should carefully examine the nose, but he should also be a general physician, and search the entire system for the often obscure *causus morbi.*

Dr. Thrasher reported two cases of reflex salivation, due to intra-nasal disease.

He thought that the cause of the nasal reflex was twofold:

Primarily, a diseased condition of the respiratory tract of the nose.

Secondarily, an abnormal irritability of the central nervous ganglia. This affection of the central nervous system might be caused by repeated irritation of the intra-nasal tissues, or it might be due to some extra-nasal irritation. It was more apt to be manifest in individuals of a nervous dyscrasia.

The condition of vaso-motor paresis, very different from active inflammation, is generally present, although it may be masked by acute inflammation.

The immediate exciting cause of the reflex may be a mechanical, chemical, or thermal irritant.

There is at times some difficulty in making the diagnosis, as the severity of the reflex is not in proportion to the amount of nasal disease. Neither does it follow that when one of the above symptoms is present, along with well marked intra-nasal disease, that the latter is due to the former. Sometimes the local application of cocaine will abolish the reflex; or, again, it may be excited by the irritation of a nasal probe; but the means are not always to be relied on.

As a rule, constitutional as well as local treatment must be instituted.

In these reflex disturbances it becomes apparent that the specialist should be broad in his ideas—not viewing the whole world through his nasal speculum, or not expecting to see the cause of all bodily ailments reflected in his rhinoscope.

THE "Red Cross of Italy" adds steadily to its efficiency. Its Genoese section was called out for mobilization exercise on the 12th ult. They marched to Cusella, and thence along the Alpine road, threading the pass between Giano and Ponte-de-cimo, and returning by rail.

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[1] Abstract of paper read before the American Rhinological Association, October, 1890.

NOTE ON THE USE OF TINCTURE OF CAPSICUM AS A COUNTER-IRRITANT.

By P. S. DONNELLAN.

IN *The Lancet* of May 17 Sir James Sawyer, drew attention to the excellent results obtained by the use of tincture of capsicum as a counter-irritant. In the same journal of May 31 Dr. Buck, of London, endorsed the observations of Sir James Sawyer, and stated that he had used the drug extensively with the same object during the past twenty years, with unvarying success. Since the publication of the above notes I have had several opportunities of testing the efficacy of tincture of capsicum in the relief of all forms of superficial pain, but more especially in cases of sciatica, neuralgia, pleurodynia, and muscular rheumatism. In my hands it has never failed to give relief, and on more than one occasion the effect was described as magical.

The mode of application is as follows: A piece of canton flannel or lint is freely sprinkled with tincture of capsicum (U. S. P.), applied over the seat of pain and covered with oiled silk. The patient almost immediately experiences a slight burning sensation, followed by a speedy diminution of the pain. The advantages of the external use of tincture of capsicum over other counter-irritants are:

It is certain and rapid in its action.

It does not produce ossication, as is the case with cantharides, or the prolonged application of mustard and iodine.

Its action is uniform, and can be kept up for an indefinite period.

1122 WALNUT STREET, PHILADELPHIA.

Society Notes.

PROCEEDINGS OF THE PHILADELPHIA ELECTRO-THERAPEUTIC SOCIETY.

THE Society met at 2005 Arch street, Thursday, November 9, 1890. President Massey in the chair.

The minutes of the last meeting were read and adopted.

At the previous meeting Dr. O. P. Willits was appointed to read a paper to-night, but being unable to be present, the paper was sent to the Secretary, and read by him, its title being

THE ELECTRICAL TREATMENT OF INFANTILE PALSY.

After quoting the opinions of Erb, Roth, Gowers, and others, the author gave brief histories of a series of cases treated at the Orthœpedic Hospital by electricity, and from the results drew the following conclusions: That while in some stages of the disease Franklinic and Faradic applications might be useful, galvanism was always of advantage, even where no apparent progress was being made, for in many, if not all cases, a retrogression was prevented, and this in itself was sufficient to justify its use. There are few cases that will fail to improve, to some extent at least, and galvanism is, probably, the best single remedy that we have for infantile palsy.

Dscussion.—DR. MASSEY took the floor, and said that the attention of the profession at large should be called to the close relation existing between summer diarrhœa in children and the lesion under consideration, the paralysis manifesting itself either during or after an attack of diarrhœa.

As to treatment he thought that the interrupted galvanic current was too powerful for such cases. The benefit was from the stimulation of nutrition, and in his opinion galvano-massage was the better form of application. He used strong currents, going from ten up to thirty ma. with children, and as high as fifty ma. upon adults, the negative being the active pole.

While the electrical treatment of poleo-myelitis was tiresome, and sometimes apparently fruitless, yet it was the only method of any value, and once commenced should be continued for at least a year.

DR. TAYLOR called attention to the conditions in this disease. On all cases there is an inflammation in the spinal cord, acute at first, finally becoming chronic, and which should receive appropriate treatment. On the first, or acute, stage he suggested wetting the active electrode, in this case the positive, with a solution of chloride of ammonium, adding that he thought the same application should be made to all acute inflammations treated by electricity.

DR. WALLING stated that while galvanism was the main stay in the lesion under consideration, yet Franklinic electricity was of undoubted benefit if properly used. His method of treatment, in some cases, was to use galvano-massage twice each week and the Franklinic spark once a week. Under both treatments the parts are well reddened, and nutrition stimulated.

DR. TAYLOR stated that when the blood supply was deficient atrophy resulted; but as long as the proper distribution of the blood was maintained, there was no atrophy.

DR. WALLING said that it was with this end in view, that is, to maintain this supply, that he used the Franklinic spark, as it was a powerful stimulant, not only to the sanguineous, but to the lymphatic circulation as well.

DR. MASSEY thought that the good results attributed by Dr. Taylor to the use of the chloride of ammonium were to be referred to the increased current, rather than to any especial virtue in the ammonium salt, and that the same lessening of resistance was obtained by the use of any other salt.

DR. TAYLOR answered that he invariably used the chloride of ammonium as a dressing in inflammatory conditions, and had derived great benefit from such applications, and regarded it as a very valuable antiphogistic. If it was so good, when used by itself, would it not be better when applied with electricity?

DR. KAHN thought that large electrodes should be used, and the treatment be long continued.

DR. WALLING exhibited his bandage, which consists of an ordinary muslin bandage covered with tinfoil, and stitched so as to render it firm; the object of the inner, or muslin lining being to give it strength.

It was to be used as follows: An ordinary bandage, or towel, after being well wetted, was wrapped around the limb, or inflammed joint, and Walling's bandage then applied over the whole, the proper pole of the battery attached, the other pole being *in situ*, when the current could be gradually turned on. He had had great success in synovitis and other joint affections by the use of this bandage in making electrical applications.

Adjourned. WM. H. WALLING, M.D.,
Secretary.

THE outbreak of typhoid fever at Arundel has assumed a serious aspect. The cases of the disease are stated to be very numerous, and several deaths are reported.

The Polyclinic.

MONTI employs the following formula in whooping-cough:

℞.—Quininæ, ... gr. vi–gr. ix.
Sodii bicarb.,
Sacchari alb., ... ää gr. xx.—M.
Divide in chartulas No. x.
S. One powder every two hours.

—Jahrb. f. Kinderheilk, *Archives of Gyn. and Pæd.*

IRON, GLYCERINE, AND CHLORATE OF POTASSIUM MIXTURE.—

℞.—Tincture of chloride of iron, . . . 30 mins.
Chlorate of potassium, ... 1 dr.
Glycerine, ... ½ oz.
Water, ... sufficient to make 4 "
Dose for adults, a teaspoonful every two hours; children, 20 drops to half a teaspoonful, according to their age.

TREATMENT OF OZENA.—1. In order to disembarrass the nasal passages of the scab that they inclose, make first morning and evening a nasal irrigation with a liter of tepid water, in which is dissolved one or two teaspoonfuls of the following powder:

Bicarbonate of soda, ... 50 grammes.
Borate of soda, ... 30 "
Chlorate of potash, ... 20 "
F. s. a.—

It is necessary to take care to hold horizontally the canula of the English syringe in bending the head lightly forward and without taking breath while pressing upon the injector.

2. Then a second injection is made with the mixture of the two following solutions which are prepared separately: (*a*) In a glass filled with hot water put a teaspoonful of the powder of boric acid. (*b*) In a second glass, containing tepid water, pour a dessertspoonful of the solution: Naphthol α or β, 5 grammes; alcohol, 10 grammes; boiling water, 1 liter.

3. Gargle with the quantity of a Madeira glassful of the following solution:

Borate of soda, ... 10 grammes.
Distilled water, ... 250 "
Glycerine, ... 30 "
Peppermint water, ... 30 "

It is necessary to throw the head backward and to make some movement of deglutition, then to bring the head forward, in making an effort of expiration, the mouth being shut in order to permit the liquid to pass out by the nasal passages.

4. Clean well the pharynx and the nasal passages with a thin stick covered with cotton. Paint consecutively all the parts with a stick covered with wadding, dipped in the following solution:

Naphthol-β pulverized, ... 5 grammes.
Powdered camphor, ... 10 "

5. Triturate to liquefaction and add vaseline liquid, ten to fifty grammes, f. s. a. sol. Every eight or fifteen days cleanse alternately with the following solution:

A cresylic, ... 1 gramme.
Glycerine, ... 50 "
F. s. a.—

(We reject the employment of creolin and of cresyl in injections or atomizations.)

6. In cases where the secretion is abundant, and when the patient is not able to be regularly attended by the physician, it is necessary to add to the irrigations some atomizations with the solution of diluted naphthol, which alternates with a solution of creosote at 1-300 or with some balsamic solutions (pitch or tar, benzoin, balsam of tolu, turpentine) employed alone or united.—Baratoux, *Am. Pract. and News.*

The Times and Register

A Weekly Journal of Medicine and Surgery.

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DR. KOCH'S REMEDY FOR TUBERCULOSIS.

THE story of Dr. Koch's discovery of a cure for tuberculosis, although dating only a few weeks back, is an old one to the most of our readers. Yet, we feel confident that even the most unimpassioned man of science must surely be filled with intense interest, if not enthusiasm, as he peruses the story of the discovery and watches the development of the results. Surely we stand on the brink of a new epoch in medicine. The exhibition of untiring energy, indefatigable labor, and undeniable genius which is shown by the work of the Berlin bacteriologist, compels us to render homage, and has called forth world-wide admiration. Robert Koch has done well—done well in his labors, and done well in his manner of presenting them to the profession and public.

True, the lay press has garbled accounts of his discovery, misstated it, given it colorings that never came from its author, and, as it usually does, has done both Koch and the discovery harm. Every precaution has been used by the investigator to prevent any misconception or misstatement, but in vain.

It has been largely for this reason that THE TIMES AND REGISTER refrained from joining the throng of medical journals, and has kept its ever-indulgent readers somewhat in suspense. We have, however, been keenly alive to their interests as ever, and therefore concluded "to look well before we jumped." Dr. Koch has now published, in the *Berliner Medicinische Wochenschrift*, a preliminary paper upon his discovery.

No doubt, says the *Lancet*, this publication has been, in a sense, forced on him by the extraordinary anxiety manifested on all sides to learn something tangible concerning a remedy about which the greatest possible expectation has been raised. From one point of view, therefore, this early publication is to be deprecated, since it does not contain any records of cases, or any account of the lines pursued by the discoverer in the production of the remedy, and no exception can be taken to a postponement of final judgment until all these facts are before the profession. Nevertheless, there are few men more worthy of confidence than Prof. Koch, whose whole record is that of the patient, earnest seeker after truth, and who has already done so much to widen our conceptions of disease. That this is the general opinion is shown by the reception given to the first intimations by him that he was within reach of succeeding in his search for an antidote to the tubercular virus. Such a statement from many another source would have been received with more than incredulity; but this announcement, when made at the International Medical Congress, was welcomed as "glad tidings of great joy," for it was generally felt that Robert Koch was a man who seldom made a statement which he could not justify, and one who, in this particular instance, must have felt the tremendous issues depending on his utterances. This comparative absence of scepticism amongst a profession who have good reason for being sceptical of alleged "specific" cures, is further explained by the conviction of the truth of the doctrine that tuberculosis is owing to the invasion of the body by a parasitic bacillus, of which Prof. Koch was himself the discoverer, and with the life-history of which he is very familiar. If, indeed, he has succeeded in showing how this insidious foe of mankind can be held in check, he has crowned his first achievement by a still greater discovery, and will have earned undying fame.

Impartiality is always a characteristic of this journal; however, in the presence of the remarkable degree of public interest and professional approval, this is, indeed, difficult.

Berlin has been inundated, not only by an overwhelming tide of consumptives, but also by representatives of the profession from all parts of the world. Already warning voices are being raised in Vienna and Berlin in the attempt to stem the tide of misconception which is rolling in a veritable flood of consumptives to the Prussian capital. To all such, and to all members of the profession who may be called upon to advise for or against the immediate trial of the new remedy, we would counsel a policy of caution. At the present time the profession has only one official guide before it, namely, Koch's article in the *Berliner Medicinische Wochenschrift;* and, therefore, with the above statement of our position and feelings, we will proceed to review this paper for our readers.

The first mention made by Koch, of this remedy, was in an address delivered before the International Medical Congress, in which he spoke of a remedy which conferred upon animals experimented with an immunity against inoculation with the tubercle bacillus. The paper under discussion deals with similar investigations carried out on human subjects.

It was originally Dr. Koch's intention to complete the research, and especially to gain sufficient experience regarding this application of the remedy in practice, and its production on a large scale, before publishing anything on the subject. But, as we have said, in spite of all precautions, too many accounts have reached the public, and that in an exaggerated and distorted form, so that the publication of the preliminary article seemed imperative, in order to prevent all false impressions.

The investigations have been carried on, under

Professor Koch's directions, by Dr. A. Libbertz and Staff-physician Dr. E. Pfuhl, and are still in progress. Patients were placed at Dr. Koch's disposal by the leading physicians of Berlin.

As regards the origin and the preparation of this remedy, Dr. Koch claims to be unable to make any statements, for the reason that his research is not yet concluded. He reserves this for a future communication.

The remedy is a brownish transparent liquid, which does not require special care to prevent decomposition. For use the fluid must be more or less diluted, and these dilutions are liable to decomposition if prepared with distilled water; bacterial growths soon develop in them, they become turbid and are then unfit for use. To prevent this, the diluted liquid must be sterilized by heat, and preserved under a cotton-wool stopper; or, better still, prepared with a one-half per cent. solution of carbolic acid. It would seem, however, that the effect is weakened both by frequent heating and by mixture with carbolic acid solution, and therefore Dr. Koch always made use of freshly prepared solutions. Introduced into the stomach, the remedy has no effect; in order to obtain reliable effect it must be injected subcutaneously. For this purpose Dr. Koch has used exclusively the small syringe suggested by him for bacteriological work; it is furnished with a small rubber bulb, and has no piston. This syringe can be easily kept aseptic by absolute alcohol, and to this Koch attributes the fact that not a single abscess has been observed in the course of more than a thousand subcutaneous injections. The place chosen for the injection—after several trials in other places—was the skin of the back between the shoulder blades and the lumbar region, because here the injection led to the least local reaction—generally none at all—and was almost painless.

In the healthy subject the injection of the remedy produces, within three or four hours, a pain in the limbs, fatigue, inclination to cough, and difficulty in breathing, which speedily increases. During the fifteen hours an unusually violent attack of ague follows, which lasts for an hour. At the same time there is nausea vomiting and a considerable rise of temperature. The next day the temperature falls to normal, but the feeling of fatigue and pain in the limbs continues for a few days, and for exactly the same time the site of the injection remains painful and slightly red. These are Koch's personal experiences with the remedy injected into his own arm. We will pass over the description of the specification of the remedy on tubercular processes, and proceed to the more important question of the local and general reaction, the diagnostic value of the method, the curative effect of the remedy, the dose, and the application. In this, we have been greatly aided by the admirable translation of Dr. Koch's article in the *British Medical Journal's* supplement:

The specific action of the remedy in cases of lupus is less striking, but is perceptible to eye and touch, as are the local reactions in cases of tuberculosis of the glands, bones, joints, etc. In these cases swelling, increased sensibility, and redness of the superficial parts are observed. The reaction of the internal organs, especially of the lungs, is not at once apparent, unless the increased cough and expectoration of consumptive patients after the first injections be considered as pointing to a local reaction. In these cases the general reaction is dominant; nevertheless, Dr. Koch feels justified in assuming that here, too, changes take place similar to those seen in lupus cases.

The symptoms of reaction above described occurred without exception in all cases where a tuberculous process was present in the organism, after a dose of 0.01 cubic centimeter, and the remedy will, therefore, in the future form an indispensible *aid* to diagnosis. By its aid we shall be able to diagnose doubtful cases of phthisis; for instance, cases in which it is impossible to obtain certainty as to the nature of the disease by the discovery of bacilli or elastic fibres in the sputum, or by physical examination. Affections of the glands, latent tuberculosis of bone, doubtful cases of tuberculosis of the skin, and such like cases, will be easily and with certainty recognized. In cases of tuberculosis of the lungs or joints which have become apparently cured we shall be able to make sure whether the disease has really finished its course, and whether there be not still some diseased spots from which it might again arise as a flame from a spark hidden by ashes.

Of much greater importance, however, than its diagnostic use is the therapeutic effect of the remedy. In the description of the changes which a subcutaneous injection of the remedy produces in portions of skin changed by lupus it is mentioned that after the subsidence of the swelling and decrease of redness the lupus tissue does not return to its original condition, but that it is destroyed to a greater or less extent, and disappears. Observations show that in some parts this result is brought about by the diseased tissue becoming necrotic even after one sufficient injection, and at a later stage it is thrown off as a dead mass. In other parts a disappearance, or, as it were, a melting of the tissue, seems to occur, and in such cases the injection must be repeated to complete the cure.

In what way this process occurs cannot as yet be said with centainty, as the necessary histological investigations are not complete. But so much is certain that there is no question of a destruction of the tubercle bacilli in the tissues, but only that the tissue enclosing the tubercle bacilli is affected by the remedy. Beyond this there is, as is shown by the visible swelling and redness, considerable disturbances of the circulation, and, evidently in connection therewith, deeply seated changes in its nutrition which cause the tissue to die off more or less quickly and deeply, according to the extent of the action of the remedy.

To recapitulate, the remedy does not kill the tubercle bacilli, but the tuberculous tissue; and this gives us clearly and definitely the limit that bounds the action of the remedy. It can only influence living tuberculous tissue; it has no effect on dead tissue, as, for instance, necrotic cheesy masses, necrotic bones, etc., nor has it any effect on tissue made necrotic by the remedy itself. In such masses of dead tissue living tubercle bacilli may possibly still be present, and are either thrown off with the necrosed tissue or may possibly enter the neighboring still living tissue under certain circumstances. If the therapeutic activity of the remedy is to be rendered as fruitful as possible, this peculiarity in its mode of action must be carefully observed. In the first instance, the living tuberculous tissue must be caused to undergo necrosis, and then everything must be done to remove the dead tissue as soon as possible, as, for instance, by surgical interference. Where this is not possible, and the organism can only help itself in throwing off the tissue slowly, the endangered living tissue must be protected from fresh incursions of the parasites by continuous application of the remedy.

The fact that the remedy makes tuberculous tissue necrotic, and acts only on living tissue, helps to explain another peculiar characteristic thereof, namely, that it can be given in rapidly increasing doses. At first sight, this phenomenon would seem to point to the establishment of tolerance, but since it is found that the dose can, in the course of about three weeks, be increased to 500 times the original amount, tolerance can no longer be accepted as an explanation, as we know

of nothing analogous to such a rapid and complete adaptation to an extremely active remedy. The phenomenon must rather be explained in this way, that in the beginning of the treatment there is a good deal of tuberculous living tissue, and that consequently a small amount of the active principles suffice to cause a strong reaction; but by each injection a certain amount of the tissue capable of reaction disappears, and then comparatively larger doses are necessary to produce the same amount of reaction as before. Within certain limits a certain degree of habituation may be perceived.

As soon as the tuberculous patient has been treated with increasing doses for so long that the point is reached when his reaction is as feeble as that of a non-tuberculous patient, then it may be assumed that all tuberculous tissue is destroyed. And then the treatment will only have to be continued by slowly-increasing doses and with interruptions, in order that the patient may be protected from fresh infection while bacilli are still present in the organism.

Whether this conception, and the inferences that follow from it, be correct, the future must show. They were conclusive, according to Dr. Koch, in determining the mode of treatment by the remedy, which, in his investigations, took the following form:

To begin with, the simplest case, lupus; in nearly every one of these cases the full dose of 0.01 cubic centimeter was injected from the first. The reaction was then allowed to come to an end entirely, and then, after a week or two, again 0.01 cubic centimeter was injected, continuing in the same way until the reaction became weaker and weaker, and then ceased. In two cases of facial lupus, the lupus spots were thus brought to complete cicatrization by three or four injections; the other lupus cases improved in proportion to the duration of treatment. All these patients had been sufferers for many years, having been previously treated unsuccessfully by various therapeutic methods.

Glandular, bone, and joint tuberculosis was similarly treated, large doses at long intervals being made use of; the result was the same as in the lupus cases—a speedy cure in recent and slight cases, slow improvement in severe cases.

Circumstances were somewhat different in phthisical patients, who constituted the largest number of Koch's patients. Patients with decided pulmonary tuberculosis are much more sensitive to the remedy than those with surgical tuberculous affections. He was obliged to lower the dose for the phthisical patients, and found that they almost all reacted strongly to 0.002 cubic centimeter, and even to 0.001 cubic centimeter. From this first small dose it became possible to rise more or less quickly to the same amount as is well borne by other patients.

The course was generally as follows: An injection of 0.001 cubic centimeter was first given to the phthisical patient; on this a rise of temperature followed, the same dose being repeated once a day until no reaction could be observed. The dose was then raised to 0.02 cubic centimeter until this was borne without reaction; and so on, rising by 0.001, or at most 0.002, to 0.01 cubic centimeter and more. This mild course seemed imperative in cases where there was great debility. By this mode of treatment the patient could be brought to bear large doses of the remedy with scarcely a rise of temperature. But patients of greater strength were treated from the first, partly with larger doses, partly with rapidly-repeated doses. Here it seemed that the beneficial results were more quickly obtained.

The action of the remedy in cases of phthisis generally showed itself as follows: Cough and expectoration generally increased a little after the first injection, then grew less and less, and in the most favorable cases entirely disappeared; the expectoration also lost its purulent character, and became mucous.

As a rule, the number of bacilli only decreased when the expectoration began to present a mucose appearance; they then from time to time disappeared entirely, but were again observed occasionally until expectoration ceased completely. Simultaneously the night sweats ceased, the patients' appearance improved, and they increased in weight. Within four to six weeks, patients under treatment for the first stage of phthisis were all free from every symptom of disease, and might be pronounced cured. Patients with cavities not yet too highly developed improved considerably, and were almost cured; only in those whose lungs contained many large cavities could no improvement be proved objectively, though even in these cases the expectoration decreased, and the subjective condition improved.

In part, this may be assumed for other cases, when not too far advanced; but patients with large cavities, who almost all suffer from complications caused, for instance, by the incursion of other pus-forming micro-organisms into the cavities, or by incurable pathological changes in other organs, will probably only obtain lasting benefit from the remedy in exceptional cases. Even such patients, however, were benefited for a time. This seems to prove that in their cases, too, the original tuberculous disease is influenced by the remedy in ths same manner as in the other cases, but that we are unable to remove the necrotic masses of tissue with the secondary suppuration processes.

The thought suggests itself involuntarily that relief might possibly be brought to many of these severely afflicted patients by a combination of this new therapeutic method with surgical operations (such as the operation for empyema) or with other curative methods. And here Dr. Koch would earnestly warn people against a conventional and indiscriminate application of the remedy in all cases of tuberculosis. The treatment will probably be quite simple in cases where the beginning of phthisis and simple surgical cases are concerned; but in all other forms of tuberculosis medical art must have full sway by careful individualization, and making use of all other auxiliary methods to assist the action of the remedy. The most important point to be observed in the new treatment is its early application. The proper subjects for treatment are patients in the initial stage of phthisis, for in them the curative action can be most fully shown, and for this reason, too, it cannot be too seriously pointed out that practitioners must in future be more than ever alive to the importance of diagnosing phthisis in as early a stage as possible. Up to the present, the proof of tubercle bacilli in the sputum was considered more as an interesting point of secondary importance, which, though it made diagnosis more certain, could not help the patient in any way, and which, in consequence, was often neglected.

In future this must be changed. A doctor who shall neglect to diagnose phthisis in its earliest stage by all methods at his command, especially by examining the sputum, will be guilty of the most serious neglect of his patient, whose life may depend on this diagnosis and the specific treatment at once applied in consequence thereof. In doubtful cases medical practitioners must make sure of the presence or absence of tuberculosis, and then only the new therapeutic method will become a blessing to suffering humanity when all cases of tuberculosis are treated in their earliest stage, and we no longer meet with neglected serious cases, forming an inextinguishable source of fresch infections. Finally, Dr. Koch says that he has purposely omitted statistical accounts and descriptions of individual cases, because the medical men who furnished him with patients for investigations have themselves decided to publish the description of their cases, and because he wishes to be as objective as possible, leaving to them all that is purely personal.

Such is briefly a description of Dr. Koch's method for the cure of tuberculous diseases. We have endeavored to preserve the author's simplicity of diction and direct style. As soon as further reports are made, our readers shall profit by them, and feel sure that all of them will add to ours, their hearty appreciation of Robert Koch's labors, zeal, and—we trust—permanent results.

DR. CHARLES T. BEAN died at Chelsea, Mass., of pneumonia. He weighed 504 pounds.

Annotations.

THE TREATMENT OF BURNS.

BARDELEBEN treats burns after the following plan, which we quote from the *Hospital Gazette*. The injured part is first thoroughly washed with carbolic acid solution from 2½ to 3 per cent., or with a solution of salicylic acid about 3 in 1,000. All the bullæ are then punctured and the serum allowed to escape, after which the whole part is thoroughly dusted with finely powdered nitrate of bismuth, and a thick layer of cotton wool applied. The latter is changed whenever it is impregnated with the discharges from the wound. If the burn is a very extensive one, the powdered bismuth may be set aside, and a bismuth ointment used instead. The author affirms that with this dressing cicatrization proceeds rapidly, and there is less discomfort than when any other dressing is employed. Despite the large quantities of bismuth that have been applied no toxic symptoms have been noted in consequence of its use.

EMPYEMA.

DR. HENRY T. BEWLEY thus sums up his conclusions on The Pathology of Empyema, in an article on that subject in the *Dublin Journal of Medical Science*:

1. Empyema is always caused by micro-organisms.
2. These are of different species, there being no one specific variety.
3. In some cases ordinary pus-producing and putrefactive bacteria get into the pleural cavity through some opening in the chest-wall or lung.
4. Some cases are associated with croupous pneumonia, and are caused by the pneumococcus.
5. Some cases are due to the action of the tubercle bacillus.
6. In some cases pus-producing micrococci, which have in some way got into the blood, but are not, if unassisted, able to develop in the body, find in an inflamed pleura or serous effusion a locality suitable for their development, and under their influence a serous effusion becomes purulent.
7. Some cases are pyæmic.

AMERICAN MEDICAL EDUCATION.

LOOKING at the system of medical education in America as it has prevailed for many years, we observe a peculiar and unsatisfactory state of affairs growing out of the following conditions:

This is denominated a free country.

There is entire absence of national authority or control in matters of education.

Each State regulates its educational institutions as it may see fit, or rather, we might say, leaves them to manage themselves.

Many of these institutions are to all intents and purposes, private corporations, conducted in the interest of private individuals, untrammeled to a great extent by legal enactments, and controlled in their conduct only, by a poorly educated and unenlightened public opinion.

So speaks Dr. R. B. Maury in a lecture delivered at the opening of the Memphis Hospital Medical College. If the worthy doctor is ever able to secure for the control of medical, or any other educational institutions, a cultivated and enlightened, instead of "a poorly educated and unenlightened public opinion," he will secure what even the most sanguine of us shrink from hoping for.

SALIVA FOR WARTS.

A GENTLEMAN, aged about seventy-three years, had a number of warts upon his hands, some of them being quite large and unsightly. He was advised to wet the warts with saliva many times daily; in fact, whenever he thought of it. He did so, and in a few weeks the warts had disappeared.

As warts are now generally regarded as due to local tuberculosis, this case suggests the possibility that Koch may have found his asserted remedy among the digestive fluids of the human body. Some years ago, Drs. Randolph and Dixon performed some experiments with trypsin, which showed that this substance, when applied in milk to the human skin, digested the latter, causing troublesome ulceration.

Every report from Berlin, however, renders it more probable that our first surmise was correct, and that the new remedy is a sterilized culture fluid of the bacillus tuberculosis.

IN FAVOR OF CÆSAREAN SECTION.

PROFESSOR ARTHUR V. MASON, in an account of A Case of Successful Cæsarean Section, reported in the *Dublin Journal of Medical Science*, gives the following reasons in favor of Cæsarean section, as against the operation of Porro:

On looking up the most recent authorities I found that they were in favor of Cæsarean section, and against the operation of Porro, except when there was a positive indication for the removal of the uterus present. These are chiefly—

1. When the uterus is the seat of any disease, such as myoma, which, if left behind, might soon require removal.
2. When the woman is suffering from any disease, such as osteo-malacia, the cure of which might be seriously interfered with or even prevented by a subsequent pregnancy.
3. When the patient has already been so long in labor that it is probable that the discharge is beginning to decompose, or when she has been examined by persons who may easily have infected her, or where she shows evident signs of infection having taken place. As none of these conditions were present, I determined to perform Cæsarean section.

TREATMENT OF ANEURISMS.

WILLIAM MACEWEN in a paper read before the Midland Medical Society, of Glasgow, and published in the *Lancet*, says: The attempts to produce coagulation in aneurismal sacs by the introduction of foreign bodies into their interior, although occasionally successful, have failed as a rule, especially on aneurisms at the root of the neck, or where the circulation could not be controlled on the proximal side of the sac. Those who have endeavored to produce red thrombi for the purpose of occluding an aneurism under these circumstances have omitted one of the most important elements, without which success cannot be secured—namely, placing the blood in the sac in a state of rest. In intra-thoracic aneurisms and those at the root of the neck the arrest of the blood-stream is an inherent impossibility, except by occlusion of the sac; and, therefore, in them this mode of treatment is not applicable. When red thrombi are formed, in the presence of a vigorous blood-stream, they are more liable to disintegration and absorption than to organization.

It is in this way the red thrombus formed on the positive electrode by galvanism is so often of no benefit. But why are there some successes, complete or partial, and how do these arise? It is due to these successful stray cases that a half-hearted belief in this line of treatment still lingers. In the majority of such subjected to pathological examination at various periods subsequently to the complete or partial cure, the sac has been found to contain white thrombi, which, it is assumed, resulted from organization of the red thrombi. While not doubting that red thrombi may have organized tissue substituted for them, I believe that in many such the white thrombi have originally formed as such, and were caused not intentionally by the operation, nor from any effect upon the blood-stream, but by accidental circumstances quite apart. Thus, for instance, in certain aortic aneurisms treated by galvano-puncture, white thrombi have been noticed developed at the points punctured by the needles. These were attributed to the galvanism, whereas they were due to the damaged vessel wall setting up a reparative inflammatory process. This interpretation of the phenomenon receives support from the fact that white thrombi may be produced by penetration of the vessel wall without galvanism.

SULFONAL.

I THINK to get the best effect from sulfonal, it should be given in a hot drink about an hour before we wish the patient to go to sleep. I had a case not long since, that was suffering from an attack of melancholia. She had been an inmate of an insane asylum some three or four years ago. At the time I first saw her she was extremely nervous, had not slept any for several nights, and said she was very sure there was nothing in the world that could put her to sleep. The first night I gave her fifteen grains of sulfonal; she slept about four hours. The second night I gave her twenty grains, and she slept for ten hours, and was greatly refreshed and much less nervous. She had no unpleasant after-effects and continued to take a powder every other night for four nights. At the end of that time she could sleep without taking a hypnotic.

—Wright, *Journal of Materia Medica.*

BABY FARMING IN POLAND.

SOMETIME ago the *Lancet* directed attention to the systematic practice of baby farming as recently carried on in Poland, whence, with Warsaw as its center, it spread over the whole of Russia. Later intelligence has revealed the details of methodical cunning and cruelty which have enabled a band of miscreants charged with two hundred child murders to escape detection till within a very recent period. Four women and two men are said to have lived by this horrible business. Three of the former were related; of the men one was a gravedigger, the other a coffin maker. Infants entrusted to the women died in due course, of starvation, and were buried periodically in batches of six together in one adult coffin. The confederacy was in fact an automatic trap for infant life of simple and precise construction, and, in the evident absence of effectual registration, very successful in its use. It seems remarkable that in a country where police inspection is carried to an extreme this multiplied and aggravated crime should have passed so long undiscovered. Official acuteness, it is clear, has been completely outwitted, and it is only reasonable to expect that the authorities will now use every means to expose the causes of so great a failure and to prevent its recurrence. We have spoken of registration, and it would certainly seem that as regards this matter, a stricter process is very desirable, both as regards the nurses and the children. Not the least remarkable feature about these disclosures, however, is the leniency of the sentences inflicted on the perpetrators of so many crimes. The chief offender, it is said, will bear the light burden of three years' imprisonment, the others less in proportion.

SLAUGHTER HOUSES AND THEIR ABUSE.

DR. R. HARVEY REED, in a report before the Richland County [Ill.] Humane Society on the subject of slaughter shops, which he investigated at the request of the society, says, among other telling things:

"Who knows how many cholerated chickens and turkeys have found their way into our markets and been eaten by our people? The common 'pudding meat' of our shops has an interesting history, surrounded with fragrance and tainted with romance. This delicate luxury is the child of the shop-soured scraps that have become unsalable, which are cooked up with, and not infrequently, the calves and sheep heads (the two latter with the brains and eyes also) until the bones can be shook out of them, when they are picked out and the meat is ground up and seasoned highly so as to cover any tainted flavor it may have, and is then stuffed in skins, when it is ready for sale; and in this way an unpalatable, unmarketable batch of meat is made salable. Bologna sausage may be said to be just a grade above the former, but, likewise, is composed of shop-soured meat, mixed with 'blue meat,' *i. e.*, old cows and the like that are too poor and tough to place on the market in any other shape.

"When an accumulation of this is gathered up, it is not infrequently sent to a foundry on Fourth street, where it is ground by steam in an old, dirty, fly-covered cutting box, all gummed up with dried blood, fibrin, and meat juices, whose fragrance is enough to entice the buzzards for miles around, but which is little better than some of the meat that is sent there to be ground. After this, the meat pulp is highly seasoned; a little smoked bacon is sometimes cut up with it to give it a palatable flavor, when the whole mass is thoroughly mixed and stuffed in skins, smoked a little, and placed on the market.

. . . . . .

"You would all 'gag' at the idea of eating dog meat, but will you tell me how much better in point of cleanliness and purity a hog is which is fattened on the poorest and foulest class of flesh imaginable, than the carnivora, whose nature it is to live on meat. Is it any wonder Germany has excluded the American hog from their markets? We are not here to condemn the hog that is fattened on corn and fares sumptuously on pure water every day; but the hog that quenches his thirst with blood, and is fattened on spoiled meat and intestines, is not fit for the use of man as an article of diet, in the humble opinion of the writer.

. . . . . .

"The building should be so constructed as to be always kept in a perfectly sanitary condition, as well as scrupulously clean. The floor should be made so it can be flushed, and kept perfectly clean, and the blood and offal all cleaned up every day and properly cared for, which should be done by cremating it, or by using it for a fertilizer, but not by feeding a pen of pigs in an adjoining inclosure to the slaughter house."

Pamphlets.

The Continuous Side Stitch Method for Wounds of the Intestine. By C. L. LEWIS, M.D., Professor of Physiology in the Tennessee Medical College. Reprinted from the *Journal of the American Medical Association.*

A Clinical Study of Forty-seven Cases of Paralysis Agitans. By FREDERIC PETERSON, M.D. Reprinted from the *New York Medical Journal.* Illustrated.

Heart Disease in Insanity, and a Case of Panphobia. By S. V. CLEVENGER, Chicago, M.D., Ills. Reprinted from the *Alienist and Neurologist*, St. Louis.

Legal Aspects of Spinal Concussion. By S. V. CLEVENGER, M.D.

One Hundred Consecutive Cases of Labor at the Maryland Maternite. With a Description of the Methods Practised in that Institution. By GEORGE H. ROHE, M.D., and WM. J. TODD.

An Address on Ether Drinking; its Prevalence and Results. Delivered before the Society for the Study and Cure of Inebriety. By ERNEST HART. Reprinted from the *British Medical Journal*, October 18, 1890.

A scholarly and earnest paper, in which the author speaks out of his own experience.

Proceeding of the Society for the Study of Inebriety. November, 1890.

The Teaching and History of Mathematics in the United States. By FLORIAN CAJORI, M.S. (University of Wisconsin), Washington, 1890.

Contains an account of the various methods of teaching mathematics in the principal colleges of the United States.

Report for the Year 1889–'90, presented by the Board of Managers of the Observatory of Yale University to the President and Fellows.

The Medical Digest.

FRENCH NOTES.

BY A. E. ROUSSEL, M.D.

TREATMENT OF TUBERCULAR LARYNGITIS (Moure). —*In the inflammatory form* we will confine ourselves to a palliative and antiphlogistic treatment: counter-irritants (vesications or the actual cautery to the exterior of the larynx), inhalations or pulverizations soothing and antiseptic, occasionally emollient gargarisms, absolute rest of the organ.

If the epiglottis and the extra-laryngeal region are the seat of ulcerations, the gargarisms, or rather throat baths, judiciously employed, are useful.

The following gargarism is recommended as being both antiseptic and soothing:

℞.—Iodine (metallic), ...
Iodide of potassium, ... āā 5 grains.
Carbolic acid, ... ℥ss to gtts. 45.
Laudanum (Sydenham), ... ℥j.
Glycerine, ... ℥iv.

One teaspoonful of the above in a glassful of warmish water, to be used as a gargle three or four times a day.

If the patients object to the disagreeable taste, or if the results are not marked, we can use the following instead:

℞.—Carbolic acid or creasote, ... ℥ss to ℥j.
Bromide of potassium, ... grs. 45 to 75.
Laudanum (Sydenham), ... ℥j.
Glycerine, ... ℥iv.

One teaspoonful to a wineglassful of water.

From 7½ to 15 grs. of hydrochlorate of cocaine may be added to the above to render it more anesthetic.

Regarding local applications, they are not well supported as a rule, as they almost always irritate the larynx: if there is any trouble of deglutition, we may touch the ulcerated parts with a solution of cocaine or of morphine. If, for some reasons, local applications are counter indicated, the spray of the atomizer may be used for two or three minutes instead.

In the chronic form of laryngeal tuberculosis, if ulcerations exist, besides the pulverizations and inhalations, antiseptic and astringent of the first stage, which may also be employed here, the following solution may be used in the atomizer:

℞.—Chlorhydrate of cocaine, ... 4 to 5 grains.
Hydrate of chloral, ... 30 to 45 "
Bromide of potassium, ... 30 to 45 "
Glycerine (pure), ... 1½ ounces.
Distilled water, ... 6 ounces.

To be used three or four times a day, from three to five minutes.

In certain cases we will replace the cocaine by crystallized carbolic acid or by creasote.

In the third stage we make use of a solution such as the following:

℞.—Chlorhydrate of morphia, ... 4 to 10 grains.
" of cocaine, ... 6 to 15 "
Carbolic acid, ... 15 to 30 "
Glycerine (pure), ... 1 ounce.
Laurel water, ... 5 drachms.
Water, ... 9 to 16 ounces.

To be used in atomizer for two or three minutes; do not swallow.

We may replace the carbolic acid by 45 to 60 grs. of bromide of potassium, or hydrate of chloral, according to the indications.

To facilitate deglutition, we may touch the parts with the following solution five minutes before eating:

℞.—Chlorhydrate of morphia . . . . . 4 to 8 grains.
" of cocaine, ... 8 to 30 "
Glycerine (pure) . . . . . 7 ounces.

—*La Gazette Médicale.*

BILIARY FISTULA.—In a note on analysis of bile, Mr. Fairley says that from a biliary fistula the daily discharge was thirty ounces, much in excess of the quantity mentioned in the text-books. He states that the liquid was free from sulphates, while copper was always present. The gall-bladder fluid which mixed with the bile was possessed of considerable antiseptic properties.—*Amer. Practitioner and News.*

HAMAMELIS AND ALCOHOL IN THE TREATMENT OF NASAL POLYPI.—In an article on the treatment for the radical cure of polypi in the nose, Dr. E. Harrison Griffin recommends spraying the nose night and morning with sprays of witch hazel or of alcohol, at first diluted and gradually increased to full strength, for at least one year after thorough removal of the polypi with the wire snare. He reports a number of illustrative instances, in one of which he removed fully three hundred polypi at various sittings, and in another more than one hundred in the course of a week. Caustics and cautery after extirpation he finds to be almost invariably followed by renewed growths.

—*Medical Record.*

HABITUALLY MOIST FEET.—This is found most frequently in such persons as live well and take little exercise; also in young women of a somewhat nervous temperament, who indulge in the pernicious habit of frequent tea-drinking. Aside from its unpleasantness, the danger attending on wet feet is acknowledged, and it is also not rare for persons so affected to have their feet and legs icy cold for long periods of time. In the editor's experience, the best results of treatment have been obtained from the employment of foot-baths of a strong solution of extract of pinus canadensis (Kennedy's) every night, and the use of powdered boracic acid, or salicylic acid mixed with lycopodium, oxide of zinc, or other inert powder, constantly applied inside the stockings.

—Jamison, *Edinburgh Med Jour.*

Chronic Constipation.—At the meeting of the Berlin Medical Society Herr Flatau introduced a new method of treating cases of chronic constipation due to torpor of the colon. This consists in applying about three grammes of boric acid. In those cases in which the lower edge of the rectum protrudes through the anus, and when this remains visible after powerful contractions of levator ani and sphincters, the quantity of boric acid mentioned is either to be dusted on or rubbed on the mucous membrane in sight. In cases in which the mucous membrane is not visible it must be insufflated. It is important that the medical attendant should carry out the procedure himself, at any rate, at the commencement. The patient should then keep quiet for a time. In from an hour to three hours peristaltic action will be observed in the colon. He has never seen a failure from this method of treatment, nor had he seen a case where the patient got so accustomed to it that it ceased to be effective. On the contrary, if carried out systematically daily, permanent improvement in time takes place, and normal peristalsis is returned to. He had tried a number of other substances but none had the same useful effect.

—*Medical Press and Circular.*

At a recent meeting of the Edinburgh Medico-Chirurgical Society, reported in the *Medical Press and Circular*, Prof. Annandale read a paper on Wry-neck, its Varieties and their Treatment. He classified the varieties under four heads:

1. Simple wry-neck, contraction of one sterno-mastoid muscle, occurring in every degree, (1) congenitally, (2) from wounds of the muscle arising at childbirth or during operation, (3) from paralysis or wasting of one muscle from any cause, or (4) as a bad habit. The treatment of this form consisted in stimulation of the muscle by counter-irritation, massage, and galvanism, followed by the division of the tendon if the other methods were not sufficient.

2. Temporary spasmodic wry-neck, the result of spasmodic contraction of one sterno mastoid muscle. This was generally due to some local irritation, and the treatment of it was self-evident.

3. Permanent spasmodic wry-neck, a very distressing condition for the patient, coming on (1) as a result of the temporary form, (2) from general nervous conditions, and (3) from over-exertion of one of the sterno-mastoid muscles, as in the case of compositors and weavers. The treatment of this form was division of the spinal accessory nerve. Prof. Annandale here cited several cases in which he had performed this operation.

4. Complicated wry-neck, depending on disease of the vertebræ, cicatrices, tumors, or enlarged glands. In such cases the treatment was to get rid of the offending cause, and thereafter treat the wry-neck if necessary.

Paraldehyde as a Cause of Albuminuria.—In May, 1887, I was called to see Mrs. X., aged fifty-five. She had been considerably worried over family troubles, and, being unable to sleep, had two months previously consulted a homœopath in her neighborhood. He had prescribed elixir of paraldehyde. She had continued taking the drug in gradually increasing doses, and when I saw her had been taking from sixteen to eighteen ounces in the twenty-four hours. She was extremely morose, irritable, and apprehensive. The tongue was dry and coated with a brown fur, breath foul, lips cracked, and skin dry and parched. The teeth were discolored, and the hair had become very brittle. Her eyesight was very much affected; she was troubled with diplopia, and could not see the clock across the room. Her appetite was gone and she was much emaciated. The examination of the urine made on the second day showed one-fourth of one per cent. of albumen, diminished urea, and absence of casts. Subsequent examinations made at intervals of every three days, continued to show the same condition for six weeks; after which it gradually disappeared, and at the end of three months the urine had become normal. Her general condition improved, and she entirely regained her health. Although I have made examination of her urine every two months since then, I have never detected even a trace of albumen. Knowing her health to have been good, and having had occasion to examine her urine in 1885 and 1886, and also early in the year 1887, before she took the paraldehyde, I am satisfied that the condition of the kidneys was due directly to this cause, and had the drug not been discontinued, it would have terminated in a confirmed albuminuria.

—Goodman, *Amer. Pract. and News.*

Antiseptic Precautions in the Hygiene of Newborn Infants.—Epstein considers that our knowledge and opinions in regard to infection and infectious diseases have thus far taught us nothing in regard to the treatment of a disease which is already in progress. In other words, there are no specific antidotes. But in the way of prophylaxis much may be done, and notably so in diminishing the mortality from pyo-septicæmia in the newborn, a disease which is common both in public and private practice. Its diagnosis at this period of life is not easy, for fever and chill may be absent, nothing can be learned by interrogating the patient, and even post-mortem organic changes may not be demonstrable. A common accompaniment of the disease is intestinal catarrh, also a marked debility which may exist from birth. The disease is rarely acquired *in utero* or *interpartum*. Septic matter from without enters most frequently by the navel, but may enter through other avenues. The danger of navel infection is greatest during the first few days of life. Infection through the mouth may occur in diphtheria, septic croup, and aphthæ. Infection may be due to the aspiration of poisonous amniotic fluid, or to contact with the diseased genitals of the mother. Sepsis may develop insidiously, and suppurating processes not appear until months have elapsed. Prophylaxis should begin with most careful treatment of the umbilical cord, the object being to produce mummification as speedily as possible. Cleanliness on the part of the physician, nurse, and mother is indispensable. Créde's method of instilling one drop of a two per cent. solution of nitrate of silver into each eye at birth should always be practised as a preventive of blennorrhœa. If artificial feeding is a necessity, sterilized milk should invariably be used.

—*Amer. Journ. of the Med. Sciences.*

Inflammation of the Vermiform Appendix.—At the meeting of the Société de Chirurgie, M. Schwartz continued the discussion on the treatment of inflammation of the vermiform appendix. He said that he had lately had three such cases in his service which presented interesting particulars. The first was that of a man, aged thirty-eight, who had been treated three months previously for typhilitis. All was going on well until, fatigued by long journeys in cabs, he felt a sharp pain in the right groin; for three days the pain remained stationary, but on the fourth the temperature went up, and the patient was seized with all the symptoms of acute inflammation of the

abdomen, with swelling in the right iliac fossa. General peritonitis following, a relapse of typhilitis was diagnosed. An incision was made over the cæcum, and behind that portion of the intestine a large collection of fœtid pus was discovered and withdrawn. No sign of perforation could be found, nor was there any foreign body in the appendix. The patient sunk rapidly after the operation, and no autopsy could be made. The second case was that of a man of sixty-five, who complained on admission to the hospital of a severe pain which he felt for a fortnight previously in the iliac fossa. A swelling was discovered in that region of no considerable extent, but other symptoms of abscess were wanting; however, dullness on percussion was manifest. The exploring needle revealed the presence of matter, and the usual operation was performed. The man made a complete recovery. The third case was that of a woman, which presented the same symptoms. She did not survive the operation. In concluding, M. Schwartz said that these cases proved first—the difficulty of making a satisfactory diagnosis, and second—the necessity of prompt interference. M. Reclus was not of the same opinion, however. He considered that the diagnosis was generally easy, but unless perforation was thoroughly suspected, an early operation should be discountenanced.—*Med. Press and Circular.*

Neuritis of the Viscera.—There is, perhaps, no field of medicine in which greater difficulties are to be found, than in dealing with some of the cases of obscure and persistent pain as it is often met with in the abdominal region. Much has been written on the subject of visceral neuralgia, its causes and treatment; but nothing on the condition of visceral neuritis. On the subject of multiple neuritis there is now a good deal of literature. Some valuable work has been done by Leyden, Buzzard, Seguin, Dana, Gowers, and I may mention several articles by myself on Peripheral Paraplegia, Ascending Paralysis, Pseudo-Tabes, etc. This case I am now dealing with happened last winter during the epidemic of la grippe. A short time after the attack of influenza had passed off, the patient, a lady in her fortieth year, began to complain of paroxysms of pain of a most agonizing character. These attacks might occur at any hour in the day; but were generally most likely, and most severe, towards morning. Despite all efforts to relieve the patient, the case gradually grew worse, and she died after a period of great suffering lasting ten weeks.

The examination of the nerves and ganglia throughout the abdomen showed them to be in a highly inflamed condition. Under the microscope there was marked degeneration in some of the nerve tissue.

Here we have a sufficient explanation of the violence of the pain suffered, and of the stubborn and incurable nature of the illness. There is no reason why there may not be an attack of neuritis affecting the viscera, causing some of the obscure cases we meet with. Neuritis of the peripheral nerves is now a well established condition. It is hoped that this case may induce others to look for examples of neuritis in the abdominal and thoracic cavities.

—Ferguson, *Alienist and Neurologist.*

Albuminuria in Children.—Dr. Seyournet, in the *Union Médicale du Nord-Est* describes a form of albuminuria which he considers is more frequent than is generally supposed among children. It differs from the scarlatinal type usually observed. He studied the former type amongst children of the age of from eleven to sixteen months. A great many of the patients had been brought up on the bottle, having been fed on unsuitable food, causing distension of the abdomen or stomach, or occasionally enlargement of the liver, or intestinal disorders, accompanied by vomiting or diarrhœa. He believes this special form of albuminuria to be of an infectious character, and traces it back pathogenetically to certain toxic substances which are generated by abnormal fermentation in the bowels. These substances are absorbed by the bowels, and pass to some extent into the kidneys. They produce congestion in the renal tissue, which may lead to inflammation of the kidneys. One of Dr. Seyournet's little patients had scarlet fever twenty-two days after convalescence from this albuminuria. It is evident from this fact that it was not scarlatinal albuminuria. It was usually accompanied by anuria, whereby the congested condition of the kidneys was intensified. With some of the patients the daily evacuation of urine was only half an ounce. In one case the patient passed no urine for more than forty-eight hours. Notwithstanding this, no uræmic symptoms appeared. It was in most cases only the anuria which led to the urine being examined for albumen. The result of the examination in each case was positive. A strongly-marked feature of this disease is the œdema of the feet, sometimes also of the hands, and of the eyelids and face; but the latter were not always affected. The quantity of albumen varied from a drachm to ten drachms per diem. The duration of the disease was from two to four weeks. The treatment consisted in giving milk, which, in some cases, was mixed with lime water. Where there was vomiting, gentle aperients, such as castor-oil or calomel, were given; salicylate of bismuth was employed, in order to disinfect the bowels as much as possible. Systematic massage of the lumbar regions was also employed, in order to relieve the congestion of the kidneys.—*Lancet.*

Vulvar Œdema Complicating Pregnancy.—Œdema of the vulva sufficient to entirely occlude the vaginal outlet, with eclampsia threatening to supervene at any moment, invites a report of the following case:

M. L., twenty-two years old, Irish, domestic, primipara, in the last fortnight of pregnancy, was admitted to the Lying-in Department of the New York Polyclinic Hospital, February 6, 1890. Her health had been excellent previous to her pregnancy. Nothing indicative of kidney disease had been observed.

On physical examination the lower limbs were found highly œdematous. The right foot measured around the instep, 24.1 cm.; the left foot, 26.7 cm. The right ankle measured 28.3 cm., and the left ankle 33.3 cm. The skin, at the most distended portion, was much thinned, and apparently at the limit of distension. The œdema extended to the knees. The vulva was enormously swollen.

The right half received the greater part of the infiltrated serum, causing the labium to bulge over and occlude the vaginal orifice, the left labium being almost entirely concealed. The infiltration was extending to the left labium and buttock. The labial swelling on the right side measured, in the anterior median line, 18.1 cm.; in the transverse median line, 16.3 cm., and in the entire circumference, 31.1 cm. At the lower portion of the swelling was a pin-hole opening, through which pus was exuding. The limit

of distension without rupture was here reached, the skin being quite translucent.

Abdominal palpation revealed a characteristic primipara condition.

The abdominal wall was firm, tending to oppose free expansion and elevation of the uterus. The latter was firm, hard, and of average size. The fœtus was lying with the occiput extending to the left transverse. The amniotic fluid being scant, fœtal movement was limited. The head rested very firmly in the pelvic inlet. The urine was strongly acid, odorless, of syrupy consistence, turbid, and of yellow color. Specific gravity, 1027; quantity passed during the first twenty-four hours, 37½ ounces. There was a flaky, whitish sediment. Albumen to the amount of $\frac{1}{10}$ per cent. was present. There were granular casts, a few hyaline casts, and an abundance of pus-cells—the latter probably coming from the tumor. Perspiration was profuse.

The patient suffered from vertigo, frontal headache, occasional flashes of light before the eyes, dyspepsia, nausea, and vomiting. She stated that the œdema in the lower limbs first appeared two weeks before, and gradually increased in amount. The labial swelling began three days before, and became severe in twenty-four hours. It was due, as she thought, to her being obliged to work hard, standing all day.

The group of symptoms present in this patient, pointed emphatically to the imminence of eclampsia. She was given a general warm bath, followed by an enema of one ounce of sulphate of magnesia. The foot of her bed was elevated, and pillows were placed under her legs. The external genetalia were washed with a 1–3000 corrosive sublimate solution.

She was then given *per os*, $\frac{1}{100}$ of a grain of nitroglycerine every three hours. The bowels moved freely. Within the twenty-four hours following the administration of nitro glycerine, 67 ounces of urine were passed, an increase of 29½ ounces over the preceding twenty-four hours.

Albumen diminished to $\frac{1}{24}$ per cent., a relative and actual reduction. The œdema diminished slightly in the right limb, remained stationary in the left limb, and increased in the vulva by extension to the left labium and buttock.

Numerous punctures under antiseptic precautions were made in the inferior portion of the right labium, the fluid squirting out in little streams at first.

The swollen parts were covered with gauze soaked in sublimate solution, and a folded blanket laid on top to secure gentle and continuous discharge of the serum. In twelve hours the vulvar swelling had almost entirely disappeared. Twelve hours later I undertook, in the presence of the obstetric class, external podalic version with the object of removing the head pressure from the pelvic inlet, believing that most of the unfavorable conditions present were csused by the impacted head interfering with the pelvic and crural circulation. I did not object to precipitating labor, the time for the confinement having arrived. I employed Wigand's method in the manner practised by me in a series of cases reported in *The Medical Record* of May 26, 1888, but found the mobility of the fœtus so slight that the head could not be disengaged with reasonable effort, and ceased further attempts. Labor ensued in ten hours, perhaps excited by my manipulation. After a normal labor, the patient experienced no further difficulty, all the abnormal conditions gradually disappearing.

An interesting question arose in this case. Had eclampsia supervened before the reduction of the vulvar swelling was accomplished, would not a Cæsarean section have offered greater safety than a vaginal delivery which involved from twelve to twenty-four hours for the reduction of the tumor, the excitation of labor, and cervical dilation and delivery?

This question did arise, for eclampsia seemed probable, and was decided in favor of abdominal section, for the following reasons: the mortality in cases of Cæsarean section rests to-day at 27.52 per cent. in the total results of all countries, and, better still, only 15 per cent. in Germany.[1]

On the other hand, the mortality from eclampsia beginning before labor, is given by Galabin[2] as 50 per cent., and Löhlein[3] as 40.05 per cent.

Eclampsia is generally the product of temporary functional or mechanical derangement of the circulatory or eliminative apparatus, or both. That Cæsarean section performed before the convulsions of eclampsia could have caused much cyanosis or coma, would exert a favorable influence in restraining the spasms, is reasonable. That at this stage the eclampsia would not have produced conditions unfavorable to a Cæsarean section is likewise reasonable. This patient presented more favorable conditions than the average for a successful Cæsarean section, and much more unfavorable than the average in the eclampsia arising before labor, had it occurred with the cervix beyond our reach for twelve hours. With a statistical record of at least two deaths from eclampsia to one from Cæsarean section, the latter certainly seems the more conservative procedure.

—Ayers, *Int. Jour. Surgery.*

Treatment of Tubercular Joint Disease.—Dr. W. Watson Cheyne in an article in the *Lancet* on "Expectant Treatment versus Operative Interference in Cases of Tubercular Joint Disease," says: We may at once divide cases of tubercular joint disease into two great groups from the point of view of the question under consideration—viz., those in which chronic suppuration has occurred and those in which there is as yet no visible breaking down of the tubercular desposits. Cases in which chronic suppuration has occurred, leaving out of account for the present those in which the abscesses have burst before the patient came under notice, are no longer suitable for expectant treatment, for the day is now past when chronic abscesses should be allowed to burst or left in hope of their absorption. It is not part of my subject to go into the treatment of chronic abscesses, or, indeed, into any form of operative treatment; but I may say that while I do not at all agree with the dictum laid down by Mr. Barker that the occurrence of suppuration in hip-joint disease (I do not know whether he applies it to other joints or not) is an indication for excision, I think that when suppuration occurs the whole question of operative measures should be carefully considered, and in any case we can now procure more rapid and more certain recovery by operative measures of a somewhat more severe character than simple aseptic drainage, although by that method we have had many excellent results.

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[1] Dr. Harris, in the *American System of Obstetrics*, Vol. II, page 260, records 80 cases in Germany, with 12 deaths and 38 operators; and a total of 108 recoveries in 149 cases in the hands of 82 operators in various countries.

[2] In the *American System of Obstetrics*. Vol. II, page 76, Galabin records the mortality of cases arising before labor as 50 per cent., during labor as 25 per cent., and after labor as 8 per cent.

[3] In *Lusk's Obstetrics*, page 564, Löhlein gives the mortality as 40.05 per cent. before, and 6.66 per cent. after, labor.

Medical News and Miscellany.

THE quarantine has been removed from the Spanish ports east of Gibraltar.

THE State Board of Health, Pennsylvania, recommends a regulation forbidding the importation of Spanish rags.

ACCORDING to medical classics, the use of meat in summer causes more diarrhœa than fruits; the meat spoils quickly in hot weather, and acts as an emetic or a purgative.

AS a local anæsthetic, Dr. J. B. Mattison recommends a spray of the following compound, viz.: Menthol, one drachm; chloroform, ten drachms; ether, fifteen drachms.

DR. NARCISO CARBÓ DE ALOY, Professor of Therapeutics in the University of Barcelona, died on November 5. He was a successful teacher, and contributed largely to Spanish medical literature.

PROFESSOR LEWIN, the well-known authority on syphilis, who has been disabled by illness for more than a year, has now recovered sufficiently to resume the duties of his chair in the University of Berlin.

MESSRS. JOHNSON & JOHNSON, wholesale druggists and manufacturers, are the owners of a large factory and laboratory in New Brunswick, New Jersey, which stands as a monument to their enterprise and genius.

A WOMAN living near East Dubuque, Illinois, has given birth to a child without eyes and with no place in the head for them. The forehead extends down to the nose perfectly smooth. Physicians say the child will live.

DR. EDWARD M. HARTWELL, associate in Physical Training and Director of the Gymnasium at Johns Hopkins University, has resigned to accept the position of Director of Physical Training in the public schools of Boston.

ALL soldiers who lost limbs during the war can have artificial ones supplied by the government if they will ask for them. They can get a new one every five years; or, if they prefer, they are paid its cost value instead. Legs cost $75, and arms, $50 each.

"WHO'S AFRAID."

The learned physicians tell us there is danger in a kiss;
Disease and death may reach us through that avenue of bliss.
The gentle osculation which our being wildly thrills
May bring us months of sickness and a lot of doctor bills.
They say that with the honey we are all so prone to sip
The deadliest bacteria may pass from lip to lip.
But when a fellow gets a chance to kiss a pretty maid
He's very apt to say: "Oh, hang the doctors! Who's afraid?"
—From the *Chicago Post.*

NEW MEDICAL JOURNALS.—The first number of the *Balneologisches Centralblatt*, a fortnightly periodical, dealing, according to its title page, with "balneotherapy, hydrotherapy, massage, curative gymnastics, hygiene of bathing, and dietetics," appeared at Leipzig on October 3. It is edited by Dr. Franz C. Müller. Hirschwald, of Berlin, announces that the first number of a new journal, devoted to sanitary matters, will appear on January 1, 1891, under the editorship of Professor Carl Fraenkel, of Königsberg, and Dr. Erwin von Esmarch, *Privat-docent* in the University of Berlin, who is at present lecturing for Professor Koch.

AT a meeting of the Board of Judges recently, a memorial to the General Assembly was adopted, asking that the Judges be relieved of the duty of considering applications for liquor licenses.

Among appointments to the Board of Education were C. W. Findley, Sixth Section; Dr. Thomas G. Morton, Ninth; Dr. Alex. McAdam, Twelfth; Herbert Welsh, Twenty second; Thomas Shallcross, Thirty-fifth.

A GALVESTON woman has sued Dr. J. J. Burroughs for damages said to have been incurred through her incarceration in an insane asylum.

We must repeat our caution against physicians signing certificates of insanity without the clearest proof. The best rule is to refuse to sign unless the physician can himself elicit from the patient such proofs as would convince an ordinary jury of the man's insanity. Never rely on the statements of patients' relatives, or on other heresay evidence.

INEBRIETY AND LIFE INSURANCE.—The American Association for the Study and Cure of Inebriety, will hold the first of a series of monthly meetings at the hall of the New York Academy of Medicine, on Forty-third street, December 10, at 8 P.M.

The subject of the evening will be presented by papers from Dr. D. T. Crothers, of Hartford, Conn., on Alcoholic Inebriety and Life Insurance, and Dr. J. B. Mattison, of Brooklyn, N. Y., on Opium Addiction and Its Relation to Life Insurance. Other leading physicians will participate in the discussion.

The medical public is cordially invited.

THE influx of American physicians to Berlin to study Dr. Koch's method of curing consumption is less than was expected. So far only three have registered their names at the American legation. They are Dr. Samuel G. Dixon, who represents the Jefferson Medical College, of Philadelphia; Dr. John Guiteras, of the University of Pennsylvania, of Philadelphia, and Dr. Herring, of New York.

Dr. Uterintschen, of St. Petersburg, has prepared a paper for the purpose of proving that the Brown-Séquard emulsion, or elixir of life, which created such a stir at the time of its discovery, has a similar effect on tuberculosis as Professor Koch's lymph. Eighteen patients have been inoculated for the purpose of demonstrating the result.

MUTUAL AID ASSOCIATION OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY. — In order to awaken an interest in the work of this association, and enlarge its field of usefulness, the regular meeting of the County Medical Society occurring Wednesday evening, December 10, will mainly be devoted to a consideration of its objects.

It is expected that Dr. Gouverneur M. Smith, late President, and Dr. Henry Tuck, President of the New York Society for the Relief of the Widows and Orphans of Medical Men, will be present and give a brief review of the successful career and present prosperous condition of the society which they represent.

A short memoir of Dr. Henry Hollingsworth Smith, one of the founders of the association, will be read by Dr. Benjamin Lee. Short addresses will be made by the President of the County Medical Society, Dr. W. W. Keen; the President of the Mutual Aid Association, Dr. De Forest Willard; Prof. D. Hayes Agnew, Prof. William Pepper, and others directly interested in this benevolent enterprise.

Immediately after adjournment, a reception will be tendered to the guests of the association from New York, at the University Club, 1316 Walnut street.

SLEEP.—How many hours' sleep do you require? As many as you can get. That is the general answer to such a question. No rule can be laid down. Jeremy Taylor thrived on three hours, and so did Cardinal Newman. Many centenarians are contented with five hours, but some of them require eight or nine. Unless you are afflicted with a pronounced insomnia—a thing widely different from occasional and even troublesome wakefulness—you are foolish to employ any kind of narcotic drug. But there are two rules of sleeping that everybody may adopt without hesitation: 1. Never let yourself be awakened by anybody else, but wait until you have slept out your sleep. 2. Get up as soon as you wake. If you follow these two rules, the hours of sleep will very soon regulate themselves. If you read yourself to sleep, you should read a heavy book, not a light one—a book that taxes and tires your brain, not one that stirs and stimulates it. A dull book is good, a stupid one is better.—*St. James Gazette.*

PATENTS, ETC., on medical subjects, issued November 25, 1890:

Liquid-evaporating apparatus (3 patents)	J. A. Morrell	Landsdale, Pa.
Evaporating liquids	J. A. Morrell	Landsdale, Pa.
Insecticide	F. Jones	Morse, Kansas.
Obstetrical forceps	A. B. Lyman	Baltimore, Md.
Making vegetable pepsine	V. Marcano	Caracas, Venezuela.
Making peptones	V. Marcano	Caracas, Venezuela.
Making peptonized meat	V. Marcano	Caracas, Venezuela.
Concentrating solutions and extracting solids therefrom	J. A. Morrell	Caracas, Venezuela.
Concentrating solutions	J. A Morrell	Caracas. Venezuela.
Syringe, (2 patents)	W. W. Guptill	Boston, Mass.
Artificial tooth	F. T. Van Woert	Brooklyn, N. Y.

TRADE-MARKS.

Bromine and Lithia Waters. (The words "Georgia Bromine Lithia (Salt Springs) Water," and the representation of a spring house, the prominent features of the construction thereof comprising two gables in the roof and open work below the roof)	Bowden Lithia Springs Co.	Lithia Springs, Ga.
Medical compounds for Antithermic, Antirheumatic, and Antiseptic uses. (The word "Euphorine")	F. Von Heyden, Nachfolger, Radebuel	near Dresden, Germany.
Antiseptic. (The word "Bromole")	C. J. Rademaker	Louisville, Ky.
Medical Tonics. (The letters "H. L. P." in the form of a monogram.)	S. Peters	Cornwall, Pa.

LABELS.

"Dr. Aberle's Coffee Tonic"	J. Aberle	Cleveland, O.
"Positivus Catarrh Remedy"	C. S. Ely	Milton, Pa.
"Dr. Pendlebury's Wonderful Pectoral Cough Cure"	E H. Merritt	New York, N. Y.
"Bush's Liquid Beef"	Bush & Talbot	Boston, Mass.
"Calisaya Tonic Bitters"	A. C. Peckham's Sons	St. Louis, Mo.

—CHARLES J. GOOCH, *Patent Attorney.*

LOCK BOX 76, WASHINGTON, D. C.

TO CONTRIBUTORS AND CORRSEPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy and Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from November 16, 1890, to November 29, 1890.

Leave of absence for one month is granted Captain Edward B. Moseley, Assistant-Surgeon, U. S. Army. S. O. 100, Dept. of Texas, November 17, 1890.

By direction of the Acting Secretary of War, leave of absence for six months, on surgeon's certificate of disability, with permission to go beyond sea, is granted Captain Henry G. Burton, Assistant-Surgeon. Par. 9, S. O. 269, Headquarters of the Army, A. G. O., November 17, 1890.

By direction of the Acting Secretary of War, Captain John L. Phillips, Assistant-Surgeon, is relieved from further duty at Fort Crawford, Colorado, to take effect on his relinquishing the unexpired portion of his present leave of absence, and will report in person to the commanding officer at Camp Guthrie, Oklahoma Territory, for duty at that station, reporting by letter to the commanding general, Department of the Missouri. Par. 7, S. R. 269, A. G. O., Washington, November 17, 1890.

By direction of the Acting Secretary of War, leave of absence from January 1 to March 24, 1891, inclusive, with permission to go beyond sea, granted Captain Henry Johnson, medical storekeeper. Par. 18, S. O. 268, A. G. O., Washington, November 15, 1890.

By direction of the Secretary of War, Captain Charles B. Ewing, Assistant-Surgeon, in addition to his present duties, is assigned to duty as examiner of recruits at St. Louis, Missouri. Par. 7, S. O. 275, Headquarters of the Army, A. G. O., November 24, 1890.

By direction of the acting Secretary of War, leave of absence for three months is granted Captain Charles M. Gandy, Assistant-Surgeon U. S. Army, Fort Clark, Texas. Par 10, S. O. 266, Headquarters of the Army, A. G. O., November 13, 1890.

Changes in the Medical Corps of the U. S. Navy for the week ending November 29, 1890.

AYERS, J. G., Surgeon. Ordered to the U. S. Receiving ship "Wabash."

EVANS, SHELDON GUTHRIE. Commissioned an Assistant-Surgeon in the U. S. Navy.

BATES, N. L., Medical Director. Ordered as President of Naval Medical Examining Board at Mare Island, Cal.

MOORE, A. M., Surgeon. Ordered as member of Naval Medical Examining Board at Mare Island, Cal.

CRAWFORD, M. H., Passed Assistant-Surgeon. Ordered to the Receiving ship "Independence."

MARSTELLER, E. H., Passed Assistant-Surgeon. Ordered to the U. S. S. "Petrel."

NASH, FRANCIS S., Passed Assistant-Surgeon. Resigned from the U. S. Navy, to take effect November 23, 1891.

CORDEIRO, F. J. B., Passed Assistant-Surgeon. Granted extension of leave for four months, with permission to leave the United States.

LANSDALE, PHILIP, Medical Director (Retired.) Granted one year's leave, with permission to leave the United States.

ALFRED, RICHARD ADRIAN. Commissioned an Assistant-Surgeon in the U. S. Navy, from November 24, 1890.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service for the week ending November 22, 1890.

FESSENDEN, C. S. D., Surgeon. Granted leave of absence for fourteen days. November 22, 1890.

AUSTIN. H. W., Surgeon. Detailed as Chairman of Board of Medical Officers, to convene in Washington, D. C., December 1, 1890. November 19, 1890.

IRWIN, FAIRFAX, Surgeon. Detailed as member of Board of Medical Officers, to convene in Washington, D. C., December 1, 1890. November 19, 1890.

KINYOUN, J. J., Assistant-Surgeon. Detailed as recorder of Board of Medical Officers, to convene in Washington, D. C., December 1, 1890. November 19, 1890.

WOODWARD, R. M., Assistant-Surgeon. Granted leave of absence for fourteen days. November 21, 1890.

CONDICT, A. W., Assistant-Surgeon. To proceed to Cairo, Ill., for temporary duty. November 19, 1890.

STIMPSON, W. G., Assistant-Surgeon. To proceed to Cape Charles Quarantine, for temporary duty. November 20, 1890.

PROMOTION.

KINYOUN, J. J., Passed Assistant-Surgeon. Commissioned as Passed Assistant-Surgeon by the President. Nov. 21, 1890.

APPOINTMENT.

COFER, L. E., Assistant-Surgeon. Commissioned as Assistant-Surgeon by the President. November 21, 1890.

The Times and Register.

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PAGE

CLINICAL LECTURE.

CHRONIC METRITIS WITH ENDOMETRITIS. UTERUS DILATED AND CURETTED. By E. E. Montgomery, M.D. - - - - - - - 537

ORIGINAL ARTICLES.

LACHRYMAL OBSTRUCTION.—A SUCCESSFUL BUT NEGLECTED METHOD OF TREATMENT. By John S. Stewart, M.D., Philadelphia - - - - - - - - - - - - - - 538

THE SUBSEQUENT HISTORY OF A CASE OF SYMPATHETIC OPHTHALMIA. By Howard F. Hansell, M.D. - - - - - - - - - - - 540

SOCIETY NOTES.

PHILADELPHIA COUNTY MEDICAL SOCIETY - 454

The Renal Status of Opium Habitués. *Mattison* - - - - - - - - - - - - - 541

NEW YORK ACADEMY OF MEDICINE - - - 543

Dr. Beely's Apparatus for Measuring the Thorax. *Shaffer* - - - - - - - - - 543

A Case of a Supposed Evacuation of a Psoas or Lumbar Abscess through the Vagina. *Ketch* - - - - - - - - - - 544

THE POLYCLINIC.

PENNSYLVANIA HOSPITAL:

In Overcoming Shock. *Morton* - - - - 545
Antiseptic Solutions. *Morton* - - - - 545
Case of Sciatica. *Meigs* - - - - - - - 545
Jaundice. *Meigs* - - - - - - - - - - 545
Catarrh of the Gastro intestinal Track. *Longsireth* - - - - - - - - - - - - 545

MEDICO-CHIRURGICAL HOSPITAL:

Prolapse of the Uterus. *Godfrey* - - - - 545
Pathological Anteflexion of the Uterus. *Godfrey* - - - - - - - - - - - - 545
Chronic Cervical Endometritis. *Godfrey*, 545
Acute Bronchitis. *Anders* - - - - - - 545
Examination of the Urine. *Keyser* - - - 545
Infantile Eczema. *Shoemaker* - - - - - 545

PAGE

Troublesome Cough. *Anders* - - - - - 546
Incipient Tuberculosis. *Anders* - - - - 546
Antisepsis. *Laplace* - - - - - - - - - 546
Gastric Ulcer. *Waugh* - - - - - - - - 546
Emphysema. *Anders* - - - - - - - - - 546
Cataractous Lens. *Keyser* - - - - - - 546

PHILADELPHIA HOSPITAL:

Acute Tonsillitis and Phagedenic Chancroid. *S. T. B.* - - - - - - - - - - 546
Treatment of Scabies. *S. T. B.* - - - - 547
Sub-involution of the Uterus. *Hirst* - - 547
Inguinal Hernia Complicated by Hydrocele. *Hearn* - - - - - - - - - - - 547
Nerve Stretching. *Parker* - - - - - - 547
Orchitis and Acute Hydrocele. *Horwitz* - 547
Heart Disease. *Curtis* - - - - - - - - 547

EDITORIALS.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION - - - - - - - - - - - 548

A WINTER CITY - - - - - - - - - - - - 548

ANNOTATIONS.

Prevention of Scarlet Fever and Diphtheria 549
The Chigger - - - - - - - - - - - - 550
"A New Cure" - - - - - - - - - - - - 550
The Census of 1890 - - - - - - - - - - 550
Habits of Doctors - - - - - - - - - - 550

LETTERS TO THE EDITOR.

Florida on Wheels. *W.* - - - - - - - - 551
Electricity in Gynecology. *Mattison* - - - 551
Adulterated Vinegar. *Bradner* - - - - - 551

BOOK NOTICES.

A Text book of Practical Therapeutics. *Hare* - - - - - - - - - - - - - - 551
Transactions of Societies - - - - - - - 551

THE MEDICAL DIGEST.

Therapeutic Value of Electricity. *Wende* - 540
Wash for the Nose and Pharynx. *Gleason* - 544

PAGE

Some Good Advice on Pleural Fissure. *Pepper* - - - - - - - - - - - - - - - 551

FRENCH NOTES. *Roussel* - - - - - - - - 552

Treatment of Frost Bite. *Brocq* - - - - 552
Non operative Treatment of Vaginismus. *Lutaud* - - - - - - - - - - - - - 552
Solubility of Naphthol. *Charrin* - - - 552
How to Obtain Koch's Lymph. *La Méd. Mod.* - - - - - - - - - - - - - - 552

Koch's Discovery. *Le Bull. Méd.* - - - - 552
Enlarged Spleen. *Finh* - - - - - - - - 552
An Efficient Tonic. *Beich* - - - - - - - 552
Gangrenous Carbuncle. *Brown* - - - - - 552
Antipyrine. *Mays* - - - - - - - - - - 552
Peroxide of Hydrogen as a Sterilizer of Milk. *Heidenhain* - - - - - - - - - 552
Grafting the Thyroid for Myxœdema. *Merklen* - - - - - - - - - - - - - - 553
Treatment of Tousillitis. *Hehir* - - - - 553
The Second Grade of Practitioners. *Lancet* 553
Cure of Gangrene. *Allingham* - - - - - 553
Orexin Hydrochloride. *Umpfenbach* - - - 553
Mosquera's Food Products - - - - - - - 553
Anti-tuberculous Vaccination in France. *Richet* - - - - - - - - - - - - - - 554
Friedreich's Ataxia. *Brown* - - - - - - 554
Treatment of Sympathetic Ophthalmia. *Abadie* - - - - - - - - - - - - - - 554
Peculiar Febrile Affection Prevailing in Nebraska. *Humphrey* - - - - - - - - - 555
Bromides in the Treatment of Epilepsy. *Zinner* - - - - - - - - - - - - - - 555
Hydronaphthol as an Antiseptic. *Bryce* - 555
Suggestions from the *Medical World* - - - 556
The Prevertebral Hæmolymph Glands. *Robertson* - - - - - - - - - - - - - 556

MEDICAL NEWS AND MISCELLANY, 557

ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - - - - - - - - 558

NOTES AND ITEMS - - - - - - iv, xii

Clinical Lecture.

CHRONIC METRITIS WITH ENDOMETRITIS. UTERUS DILATED AND CURETTED.

BY E. E. MONTGOMERY, M.D.,

Professor of Gynecology in Medico Chirurgical College, and Obstetrician to the Philadelphia Hospital.

GENTLEMEN:—The patient I bring before you is a woman forty-eight years of age, married, mother of four children, has never had a miscarriage. She has been suffering for the past two years from a sensation of weight in the pelvis; from irregular menstruation, and from frequent discharge of blood, which has led to her being exceedingly anxious as to her condition, and desirous of having a careful examination to determine its cause. Hemorrhage occurring at this time of life may be attributable to a number of conditions. Thus, it may arise from an inflammation of the mucous membrane of the uterus, which complicates a chronic inflammation of the organ. It is, or it may be, the result of growths in the wall of the uterus, such as fibroids; or from malignant disease, which may be in the form of epithelioma, carcinoma, or sarcoma. Every patient suffering from irregular menstruation, and particularly at the period near the climacteric, should be submitted to careful examination, as it is only by prompt discovery and treatment that malignant disease of the uterus can be successfully relieved. Upon examining this patient we find that the cervix is apparently free from disease, the body of the uterus is enlarged, is slightly indurated and tense; it is regular in its outline, and is freely movable. If we had to deal with malignant disease, we would find that it had developed, most likely, from the cervix, and this would be very hard, dense and resisting, with probably some ulceration upon its surface, or there would have been marked cell-proliferation and the development of a condition resembling a cauliflower growth, filling up the vagina; the surface of this growth would be exceedingly friable, so that the introduction of the finger into the vagina would give rise at once to a bleeding. The absence of such condition enables us to say that this patient is not suffering from cancer of the cervix. Before entirely eliminating the possibility of malignant disease, we should remember that in 2 per cent. of the cases in which the uterus is the seat of the disease, it may affect the body of the organ, beginning in its mucous membrane, or in the glands of the mucous membrane. In such cases hemorrhage and an offensive discharge would be prominent symptoms. By examining the cavity of the uterus by means of a blunt curette, in such a case, we would expect to find that portions of the tissue would be broken off and free hemorrhage would follow. We have subjected this patient to an examination of this character, demonstrating the fact that malignant disease does not exist.

If there was a fibroid growth within the walls of the organ, we should expect to find some irregularity, and that the uterus was not regularly developed. The examination of this patient fails to disclose any indications of this character. It is important to remember, however, that these growths may be small in size, and may have been forced into the cavity of the uterus, and are not sufficiently large to give rise to marked symptoms. A case of this character came under my observation a year ago, in this hospital. I removed the uterus for supposed malignant disease of the body; examination of the organ subsequently disclosed the fact that we had a fibroid not larger than a hickory-nut projecting into the uterus, and from this the hemorrhage had taken place. To make sure, then, of the conditions present, we propose to dilate the cavity of the uterus sufficiently to permit the introduction of the finger for careful exploration, as by no other means can we so successfully determine it. Now you will ask how the uterus can be dilated. For this purpose various methods of procedure have been instituted. The introduction of graduated bougies, increasing the size until the organ is sufficiently dilated as to permit the introduction of the finger; these instruments, however, necessarily produce traumatism of the mucous membrane and increase the danger of septic troubles. Another method is by use of mechanical dilators—instruments which dilate by the separation of parallel blades. These instruments are very much eulogized for the treatment of many conditions of flexion of the uterus, and for the relief of pains resulting from dysmenorrhœa. Their use, however, leads to bruising and laceration of the walls of the uterus, and unless the patient is carefully treated subsequently, may cause septic trouble to extend into the tubes and pelvis. The former method of dilatation was by the introduction of various forms of tent, such as the sponge, laminaria, or tupelo, the objection to these methods of dilatation is the difficulty in rendering them aseptic, and the danger from septic germs. I have frequently seen, in the practice of others, inflammation excited in the pelvis, following the insertion of the sponge tent, which would require prompt operation for the relief of the patient, or where it was neglected, lead to her death.

The plan we have pursued in this patient has been the dilatation of the cervical canal by the introduction of iodoform gauze; the vagina being first thoroughly and carefully disinfected, the gauze is pushed into the cavity of the uterus, and caried up to, or through, the internal os, and the cervical canal packed tightly with it. The gauze, through its capillary action, drains the cavity of the uterus, and does not favor decomposition or the development of germs that may be present. When the first packing is removed, the uterus will be found considerably dilated; the parts should be again disinfected and a larger quantity of the gauze introduced. This patient has in this way been packed three times, and the uterus is so dilated as to readily admit the introduction of the finger into its cavity. In so doing, we find an entire absence of any projection into it, such as would be present if we had a submucous or interstical fibroid. We are left, then, with the conviction that while hemorrhage arises as the result of the chronic inflammation in the uterus, accompanied, as it is, with inflammation of its mucous membrane; the hard, dense feeling, with the enlargement of the uterus, is due to a condition which is known as areolar hyper-plasia, or sclerosis of the uterus. This condition is a sequel of sub-involution, the organ is considerably enlarged, and, as a result, undergoes a substitution of fibrous for its muscular tissue, producing the condition of which we have spoken.

For the arrest of the bleeding, we will curette the cavity of the organ, thoroughly wash it out with a disinfectant solution, and make an application of chromic acid. In order to make sure of sufficient drainage, we will pack it with the iodoform gauze and place a pad of this gauze in the vagina beneath the cervix. By such a method of treatment we will accomplish much more than we could by subjecting this patient to repeated applications of remedies to the cervical and uterine canal, as is ordinarily done, by wrapping the applicator in cotton, dipping it into a solution and passing it into the organ; in this method, the greater part of the fluid is squeezed out at the external os, and the internal portion receives but little more than the irritation produced by the introduction of the instrument. In this case, the dilation of the uterus, by the tampon, has a very beneficial effect upon the swollen and inflamed mucous membrane, promoting the absorption of exudations that may be present; it also has an alterative effect upon the uterus, and in cases of sub-involution has a valuable influence in reducing the size of the organ, producing, as it does, more rapid circulation.

Original Articles.

LACHRYMAL OBSTRUCTION.—A SUCCESSFUL BUT NEGLECTED METHOD OF TREATMENT.

By JOHN S. STEWART, M.D.,
PHILADELPHIA.

THE flowing of the tears over the cheeks instead of through the natural drainage system of the eye into the nares, constitutes one of the most frequent and, for the most part, unsatisfactory conditions the ophthalmic surgeon is asked to relieve. In the majority of these cases the ordinary and approved form of treatment is undertaken, and, for awhile at least, both patient and consultant are sanguine as to the results. Weeks, possibly months or years, roll by; meanwhile numerous visits have been made by the more and more discouraged patient, lachrymal probes of the sizes within the prescribed limits of the text-books have been repeatedly inserted for the purpose of dilating the existing stricture, much suffering meanwhile endured, and, although some benefit probably has been derived, the overflowing of the tears continues. Disappointed, discouraged, financially embarressed perhaps, frequently with a feeling of ill-will for the profession generally, and certain of its members in particular, the patient stops all treatment, being thenceforth more of a sufferer than the inexperienced can imagine, and liable to ever increasing disfigurements about the eyes and face.

Interference with the natural flow of tears from the conjunctival sac may be due to one or more of several causes, and this must first be determined before the possibility of success in treatment can be given thought.

Closure or displacements of the puncta, which may be congenital, but are usually acquired, the result of injury or of inflammation, are not the most frequent causes of the condition known as *epiphora*. The history of the case, together with a thorough examination of the parts, both in the way of inspection and by attempted insertion of a delicate probe, will reveal whether the trouble be located at this point.

Strictures of the canaliculi or nasal ducts, particularly of the latter, will be found the cause in the majority of cases of this most annoying condition. These strictures may be produced by injury, disease of the maxillary or nasal bones, or by pressure of neoplasms, but are the result usually of extension of inflammation from the nasal or naso pharyngeal mucous membranes; likewise in some cases the inflammation may extend downward from the conjunctiva. Consequent upon the obstruction, however produced, and the accompanying catarrhal condition of the mucous tract, together with the retention of decomposing tears in the lachrymal sac, there is usually more or less swelling in the region just below the inner canthus of the eye. Pressure with the finger-tip upon the integument covering the sac may cause the expression of a viscid or muco purulent fluid, either through the canaliculi into the conjunctival sac, or downward into the nasal duct. This condition, usually described as *mucocele* or *chronic dacryocystitis*, is liable at times to assume an acute form, constituting what is know as abscess (phlegman) of the lachrymal sac. A serious complication may now arise if the pus find exit through the anterior wall of the sac instead of being discharged through the canaliculi or into the nasal duct. In many of these cases a permanent and disfiguring fistula is established in the cheek just below the region of the sac.

The causation and pathology of this affection are much better understood than is its treatment successful; the latter, therefore, will occupy the remainder of our attention at this time.

The usual and almost routine method of treatment in these cases has been the slitting through of the lower canaliculus to the sac, thereby transforming this tube-like structure into an open gutter or trough. When this has been accomplished the various sizes of probes are inserted through the sac and into the nasal duct at intervals of a few days, care being taken to keep the walls of the canaliculus from adhering, also that false passages be not made by means of the probe.

Were the mechanism of the exit of the tears from the conjunctival sac through the puncta and canaliculi better understood, or less of a mystery, the routine destruction of the canaliculus might not occur, but be reserved for those cases absolutely requiring the operation.

When in the act of winking the lids are brought in accurate contact and firmly pressed upon the ball, a more or less perfect vacuum is formed in these canals; immediately upon the termination of this act the tears pour in to fill the vacuum, and are then carried on during the next closure of the lids by the action of certain fibers of the articularis muscle which invest the walls of the canaliculi and sacs.

Thus it can be seen that the indiscriminate obliteration of this function may in certain cases produce results more disastrous than the condition already existing.

The treatment the writer employs, and which he would suggest as the first means to be adopted in these cases, is the repeated passage of the smallest size of probe (if possible) through the punctum, canaliculus and nasal duct, until relief has been obtained. At the same time, in connection with this, it is of the utmost importance to give attention and persistent treatment to the cause of the trouble, wherever it may be located.

When the conservative method just described has failed in giving satisfactory results, or has been found impracticable, there can be no longer any objection to slitting of the lower canaliculus; and it is in these cases that a rarely employed method of treatment is recommended.

The repeated passage through the nasal duct of probes of various sizes in many instances, no doubt, has proved of benefit; occasionally permanent cures are known to be effected by this means, when judiciously employed in connection with treatment of the naso-pharyngeal mucous tract. On the other hand, probably a greater number remain but partially relieved, and some few are left either no better or quite possibly in a worse condition.

The probe, even when in the hands of the most skilled, must nearly always, of necessity, injure, or perhaps tear, the delicate mucous lining of the duct, at the points where the strictures are located, if at no other. A new inflammatory action is thus started, to be followed in the process of healing by still further contraction of tissue and lessening of the lumen of the duct. Injections of antiseptic washes and astringents, by use of the lachrymal syringe, prove beneficial in some instances; frequently, however, more serious lesions are produced by this means than with the probe.

In addition to the already enumerated discouragements to be met with in the use of the generally accepted methods of treatment in these cases, patients frequently will not, or can not, make the required number of visits; so that from the outset the prospect of success is anything but favorable.

In most of the text-books of ophthalmology, insignificant mention is made of the use of the silver style; but the lead wire usually mentioned in the same connection seems to have been more generally employed in practice, and then only in obstinate cases. The writer desires to call attention to the fact that most gratifying results can be obtained by the use of the canulated silver style, this being specially true of cases of long standing trouble.

The proper insertion and action of this simple and inexpensive instrument requires that the lower canaliculus be first s it; after this has been done and the nasal duct explored by means of an ordinary probe, a style of the proper thickness, curvature and length is selected and inserted its entire length into the canal, the upper bent portion resting easily and without friction in the bed of the canaliculus.

If a properly fitting style has been selected, there will be but little pressure anywhere; and the upper portion being nearly concealed does not often cause discomfort or irritation to the eye or nose. After a few hours, excepting the cases of children or very nervous individuals, its presence is rarely noticed. Should there be any pain following insertion, the persistent use of hot strips applied near the inner canthus of the eye, usually affords relief. The great advantage of the hollow style over the lead wire, is the artificial channel thus made as an exit for the tears; and this result almost certainly follows if a properly fitting instrument has been inserted. The relief to the patient, resulting from the proper drainage of the tears, is almost instantaneous.

After some weeks or months the style may be removed and a permanent cure of the affection expected. Should the relief be found only partial after removal of the instrument, the majority of patients, having become unconscious of its presence, will prefer to wear it permanently rather than suffer as before.

1716 CHESTNUT STREET.

THE SUBSEQUENT HISTORY OF A CASE OF SYMPATHETIC OPHTHALMIA.

By HOWARD F. HANSELL, M.D.,
Chief Oph. Dep't Jefferson Medical College Hospital.

IN 1882, Miss H., aged fifty, applied at the Out Patient Eye Department of Jefferson College Hospital for relief from blindness and pain in the left eye, and for increasing dimness of vision and pain in the right. Upon inspection of the left eye, a melanotic tumor, probably proceeding from the choroid, associated with cyclitis and iritis, was diagnosed. The right eye had sympathized to the extent of a moderate iritis with a few bands of exudation between the iris and the lens capsule. The treatment conducted under the supervision of Prof. Wm. Thomson consisted of enucleation of the left eye with energetic mercurialization, and local treatment of the right with atropia and hot water. The sympathetic iritis soon subsided, and the patient left the hospital with a fair amount of vision in the right eye. (The records of the case at its earlier stage are not accessible, and I am obliged to depend on my memory and the patient's statements for the above facts.)

In June, 1890, Miss H. returned to the hospital with the following history: Until one year ago, she had been able to use her eye for all ordinary purposes, including reading; but at that time she noticed her vision gradually growing less, necessitating the abandonment of one after another of her occupations, until finally she became totally blind, with the exception of an indistinct perception of light as she faced a window or open door. She had never worn an artificial eye in the left orbit. The condition in June, '90, was: Cornea, clear; anterior chamber, free from deposit, and somewhat deeper than normal; a few small adhesions between the papillary border of the iris and the lens capsule, and the lens entirely opaque and slightly dislocated backward; no pain; light perception was undoubtedly present; light projection uncertain. She could see the illumination of a lighted gas-jet in the dark room, but she could not positively say from which direction the rays of light entered the eye. Although a good prognosis of a cataract extraction could not be given, and a plain statement of the dangers was made, Miss H. decided to take the chances of a favorable result of an operation. At her urgent request, I decided to make an effort to extract the dislocated lens, by means of a small fork devised by me, and described in the *Med. News*, March, 1889.

The withdrawal of the Græfe knife after the incision through the corneo-scleræ border was followed by a bead of vitreous. An iridectomy upward was the occasion for a still further loss of vitreous. The fork or extractor was now inserted behind the lens to a point about two thirds the way down the posterior surface. The small barbs fastened in the lens substance, and by slow, steady traction the lens were brought out through the cut. Another small portion of vitreous escaped. The eye-lids were closed immediately. A soft compress of cotton anointed with vaseline was applied to the lids and moderate pressure exerted by means of a roller bandage. After several days the eye was inspected, and the edges of the cut were found to have united. No iritis developed, and the healing progressed as favorably as after an uncomplicated extractive operation. The patient left the hospital in ten days, with instructions to return in order to be fitted with a glass. The operative manipulations were conducted under antiseptic precautions. The final result was far in excess of my anticipations. Vision with her proper sphero-cylindrical correction $= \frac{20}{200}$, and admitted of Miss H.'s reading large print.

The success of this operation encourages me to call the attention of the profession to this simple instrument for the extraction of dislocated lenses. I feel warranted in believing that no other instrument with which I am acquainted could have been employed with an equally good result. Miss H. is the third case in which I have used it and in each the extraction has been accomplished in an entirely satisfactory manner. Dr. Knapp (*Arch. Ophthal.* January, 1890) advises in the majority of cases the expulsion of the cataractous lens through the cut by external pressure, and not by means of instruments. In the cases in which I have operated this manœuver would have been impracticable, since in all three prolapse of the vitreous occurred after the incision, and pressure would have necessarily caused great loss of vitreous, and probably collapse of the ball, with the lens undelivered.

I take this occasion to warn the operator who might feel inclined to use the fork, that great care must be exercised, lest the instrument be pushed too far downward, and instead of fastening its barbs into the lens might become entangled in the ciliary body—an accident greatly to be deplored, of which I have been a witness.

252 SOUTH SIXTEENTH STREET.

DR. ERNEST WENDE, in an article in the *Buffalo Medical and Surgical Journal*, urging the therapeutic value of electricity, says:

Recently a most fruitful field in galvano-therapeutics has been opened up, and notwithstanding that the science of electro-therapeutics is largely experimental, the progress in the use of the continuous or constant current has been rapid, improved apparatus, improved and accurate modes of application, effects carefully ascertained and certified, have done away with the vagueness of aim and the uncertainty of result. Well-directed experiments and fresh discoveries have closely followed each other.

With due regard to justice, I must admit that in the majority of cases thus treated, the method is tedious and generally unsatisfactory, when the term cure comes into question, yet always palliative when relief is asked for—however, there are cases of superficial epitheliomatous ulcers of the non-infiltrating variety—surrounded by comparatively little induration, which may be dealt with most successfully with electro-puncture. Then, again, the intelligent use of this agent cannot be too strongly recommended in operations about such an important structure as the eye, where you are anxious only to destroy diseased tissue. The other advantages possessed by this treatment may be said to be that—

1. It delays the growth, even if it does not always cure.
2. It allays pain.
3. The patient is not necessarily confined to his room.

This method possesses advantages offered by no other form of treatment. As you are aware, excision often produces profuse hemorrhage, which may be difficult to control. Electrolysis causes no bloodshed. Caustics, such as nitric and chromic acids, may be vulgarly termed nasty, as they are likely to spread, discoloring the parts and often producing scars. Electrolysis is cleanly and localized in its action and produces no scars. The actual cautery is no better than caustics. Ligation is tedious and uncertain. Electrolysis is certain and rapid.

Society Notes.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

THE RENAL STATUS OF OPIUM HABITUÉS.

THIS paper, read October 22, 1890, by J. B. MATTISON, M.D., of Brooklyn, enters a field which, so far as we are aware, has not been largely worked at home, and is preliminary to one that will include, it is hoped, the opinions of other leading pathologists here and abroad.

Its present scope is mainly the views of American observers whose high repute entitles them to large respect. It will present opinions pro and con; it will offer such clinical, chemical, and microscopical evidence as has passed into history touching the topic under discussion; and it will give details of some pertinent cases that have come within the reader's personal range.

Until recent years it was largely held that while the habitual use of opium gave rise to well marked, often grave, functional disorder, it did not, like alcohol, cause structural lesion. Of late, however, there has been a growing consensus of opinion that this view is a mistaken one, and that in a fairly large proportion of cases, its continued taking—especially morphine hypodermically—will induce renal changes ranging from slight hyperæmia to profound organic derangement, ending in death.

Reaching the pith of this question, three queries were presented:

Will the habitual use of opium in any form cause organic renal disease?

If so, what lesion is most likely?

What is the *rationale?*

Roberts Bartholow: "I have made numerous observations on the effects of opium on the urine, but with negative results. The reason for this appears to me to be rational. The action of opium or morphine, used habitually, tends to diminish excretion by lessening the activity of the kidneys. The effect on the kidneys is, therefore, rather soothing and grateful to these organs. In lessening action, the blood-supply to the kidneys is diminished, congestion is prevented, and the organs carry on their functions with less strain."

Francis Delafield: "It has not seemed to me that opium is a cause of any kidney disease."

Thomas E. Satterthwaite: "In two post-mortems of patients who died of opium poisoning, the kidneys showed no structural change, although in one patient these organs were swollen and congested."

Herman M. Biggs: "Of all the autopsies that I have seen in these cases, I have been impressed with the marked chronic congestion of the kidneys. This is frequently, and, I think, generally, associated with a uniform increase in the interstitial connective tissue of the organs. The kidneys are of a very deep, uniform red color, and the consistence is decidedly increased. But I very much doubt whether the habitual use of opium in itself will cause extensive organic disease of the kidneys; I mean such disease as will seriously compromise their functions. I have never seen a case of opium addiction at the autopsy, where extensive disease of the kidneys was found, that I believed was due to the effect of the opium. I do not think the changes I have stated, as a rule, seriously interfere with the performance of the renal functions."

E. H. Bartley, Professor of Chemistry and Toxicology, Long Island College Hospital: "So far as my observation goes, I have seen no reason to believe that the alkaloid exerts any direct influence to produce organic disease of these organs. It seems to be eliminated easily and rapidly by the kidneys, and without irritation. This is especially the case when given by the stomach, in which case it is eliminated almost as fast as it is absorbed. If the practice of opium- or morphine-taking has any influence in producing organic disease of the kidneys, it is rather to be regarded as an accidental or indirect one. While morphine does not seem to possess any irritant action upon the renal structure, it lessens the amount of urine passed, and retards oxidation and the elimination, and, probably, the formation of, urea. Urine so modified is more irritating than normal, less concentrated urine, and may, possibly, tend to the formation of the gouty kidney, as interstitial nephritis. This effect is aggravated by the disordered digestion induced by the alkaloid. When morphine is self-administered, by means of the hypodermic syringe, another accidental influence is at work. Without proper care of the syringe, as to cleanliness, abscesses occasionally occur at the seat of the injection, and these tend to produce nephritis of septic origin."

John A. McCorkle, Professor of Theory and Practice, Long Island College Hospital: "I think the habitual use of opium will cause organic renal disease; that the small granular kidney is most likely, and that the reason is a low grade of inflammation induced by the elimination of a foreign substance."

J. H. Van Cott, Jr., Pathologist, Long Island College Hospital: "Based upon the supposed physiological action of opium and its alkaloids, I believe that its habitual use must be productive of renal disease. Its direct action on the vaso-motor apparatus must finally result in chronic dilation of such vessels as are controlled by the nervous system and contain non-striated muscular fibers."

Its effect upon the digestive apparatus, and the well known disturbance of primary and secondary assimilation, can hardly eventuate otherwise than in the most profound disturbance of all the so-called parenchymatous tissues; a disturbance perhaps well expressed by the term faulty retrograde metamorphosis. From any reasonable standpoint, the metabolism of cells is bound to be inhibited by the action of these narcotics, partly through vaso-motor disturbance, also through the *direct* effect of the drug on cell activity.

If, on the one hand, conditions of profound nutrition and vascular disturbance are brought about to inhibit the proper metamorphosis of all the tissues in the body, yielding only poorly-constituted products for elimination; if, in other words, the true "end-products" are not attained; and if on the other hand, the metabolic action of the very cells whose business it is to eliminate these "end-products" is inhibited—if the epithelial cells of the renal parenchyma are thus handicapped, it is inconceivable to me that they should not in time become permanently modified both in form and in functional activity.

Theoretically, the renal changes should be all those resulting from chronic renal hyperæmia—a peculiar form of diffuse nephritis, with an added parenchymatous degeneration.

Two cases of the opium disease have come under my observation, in both of which grave renal symptoms obtained. One died, and the autopsy revealed widespread chronic lesions of all the organs, the kidneys not excepted; the other is still living, having had, in the course of the summer, an uræmic attack, which nearly proved fatal.

I cannot dogmatize on the subject until more experience has been gained in the thorough, systematic, and impartial observation of the renal functions in such cases; but my experience, such as it is, all points toward the correctness of my reasoning.

Text-books make little or no mention of this topic. Wilson, is an excellent paper—Pepper's System—refers to it briefly. Niemeyer tells of interstitial nephritis due to "septic material in the blood." Roberts writes of albuminuria due to disturbed innervation. Bartholow, in Hypodermic Medication, gives negative evidence as to albumin and sugar in urine due to morphine, and thinks Levinstein's statement not applicable to cases met in this country. He further says—and this is of no mean moment as pointing to a factor in renal break-down: "The frequent use of the syringe, often the hasty introduction of the needle, and the use of a rusty and dirty needle, the injection of badly prepared solutions, the repeated injections into certain localities, have a disastrous effect. Large hard nodules form, which slowly suppurate. Extensive sloughing may take place, and septicæmia and pyæmia sometimes occur with a fatal result. In a large proportion of these morphine-maniacs suppuration abscesses of considerable size, and ulcers, are produced. I have seen the arms, the abdomen, the thighs, and legs, a mass of ulcers and of abscesses in various stages of formation." Dujardin-Beaumetz cites a fatal case of this kind, and Calval has noted many such with traumatic fever.

The most extensive, interesting, and valuable notes on this point are those of Levinstein, who observed many cases, and made frequent trials on rabbits and dogs, always getting albumen, and usually sugar. The latter he regarded as specially significant, and its relation to morphine taking, acute or chronic, of high medico-legal importance, as strong presumptive proof of the toxic agent in cases of suspected fatal poisoning from that drug.

In the absence of positive pathological facts, Levinstein thought that albumen might be due to one or all of three causes:

1. The action of morphine on the central organ which has a relation to albumen.

2. By the concurrence of anomalies in the normal pressure of the blood, causing at last intra-renal disorders.

3. By paralysis of the nerves which surround the arteria renalis. This would have the same effect as knife-cutting of those nerves, after doing which, von Wittich found albumen in the urine.

Levinstein thinks it very probable that varying blood-pressure is the leading factor. This, he suggests, explains the intermittent albuminuria common in these cases, while *continuous* albumin is due to nerve palsy of the renal artery.

Autopsic opportunities in these cases are not frequent, and the following, under the notice of Dr. Van Cott, and reported in the October Brooklyn *Medical Journal*, is of interest:

Mrs. B., aged forty years; semi invalid for years, during the last four of which she used morphine, subcutaneously; was attacked with sudden illness, having persistent vomiting, some purging, scanty, high colored, albuminous urine, which progressively increased. Later, clonic spasms of left arm, extending to entire body, like uræmic convulsions; urine almost suppressed; extremities œdematus. Death by coma and convulsion.

Necropsy.—Left larger, right smaller than normal; soft; surface studded with countless small punctiform hemorrhages. Around Malpighian corpuscles numberless hemorrhages. Microscopic—fresh, double-knife section: Most of glomeruli are hemorrhagic, extravasated blood being seen around the Malpighian tufts within Bowman's capsule. Cortex and medulla markedly congested. Epithelial cells in many tubes desquamated; many tubules have hyaline, epithelial, and granular casts; others, much granular detritus.

Conclusion: Case of microbic infection. Patient, in self-giving of morphine, drove needle through pus in left deltoid, causing systemic infection, and overstrain on kidneys already crippled by opium excess.

Since September 1, eight cases of the morphine disease have been under the writer's care, in which careful chemical and microscopical tests were made. Of these, seven gave proof of renal changes, ranging from chronic hyperæmia to structural lesion and death.

CASE I.—Physician; aged thirty-six years; kindly referred to me by Dr. Bartholow. Four years morphine-taking—eight grains subcutaneously daily. Examination disclosed such evidence of profound kidney changes that no attempt at treatment of his morphine-using was made. Patient remained a fortnight, when he showed signs of general failure, which ended in death on the eighteenth day, from lung œdema, of about twelve hours' duration.

CASE II.—Physician; aged thirty years; four years morphine-taking—thirty grains daily in one dose, hypodermically. Quit treatment prematurely, and was forced to resume the drug; is again under treatment, and will recover.

CASE III.—Layman; aged thirty years; four years morphine-taking—nine grains subcutaneously; recovered.

CASE IV.—Clergyman; aged forty-nine years; twenty-seven years addiction—twenty-three years opium, four years morphine, by mouth, six grains daily; recovered.

CASE V.—Female; aged thirty-four years; ten years morphine-taking—eighteen grains daily, hypodermically; recovered.

CASE VI.—Physician; aged twenty-eight years; four years morphine-taking—sixteen grains, subcutaneously, daily; unrecovered.

CASE VII.—Layman; aged seventy years; three years hypodermic taking—four grains daily; recovered.

CASE VIII.—Physician; aged thirty years; one year, irregular, subcutaneous taking—three grains daily; recovered.

Of these eight cases, seven had crippled kidneys, and all used the drug by needle. The twenty-seven years-taker by mouth showed no kidney lesion.

Repeated chemico-microscopical searchings in such cases have disclosed certain changes from normal renal action, and so often, that we think they may be accepted as the rule.

The urine is diminished.

The urea is lessened.

Special gravity is varied; if changed, usually lowered.

Albumin is present.

Sugar also.

The chlorides are decreased.

Casts, granular, hyaline, and waxy, are present.

Urine sediment holds epithelial cells and granular detritus.

Concluding, our own opinion, in reply to the threefold query, is:

First: Yes.

Second: Cirrhotic.

Third: A triple factor—vasomotor changes; impaired general nutrition, and inflammatory action due to non-eliminated irritant products.

Discussion.—Dr. L. K. Baldwin: I understood the reader to say that in these cases, while the urine was lessened in quantity, the specific gravity was also below normal, and sugar and albumin were present. I would ask how low a specific gravity he has noted in cases where sugar was present?

Dr. S. Solis-Cohen: I would ask Dr. Mattison what proportion of opium-users present signs of renal disease? Is the proportion of cases of renal disease larger among those who use opium than among those who do not?

Dr. Wharton Sinkler: I have listened with a great deal of interest to Dr. Mattison's paper, and my own experience, although limited in comparison with his, bears out much that he has said. I think that the use of opium, whether by the mouth or subcutaneously, does induce renal changes. In a considerable proportion of the cases under my care for the treatment of the opium habit, there has been more or less evidence of renal disturbance in the presence of albumin or casts in the urine. Frequently, however, patients are seen who have been taking large amounts of morphine subcutaneously for a long time with no evidence of renal disease. I cannot help thinking that in cases of morphine habit the renal changes cannot be very profound, from the fact that many opium habitués are long-lived. As Dr. Mattison has said, we seldom have opportunities to make autopsies in cases of the opium habit.

Dr. M. Price: I thank Dr. Mattison heartily for his paper, and especially so because I hope that it will stimulate others to investigate the effect of opium, not only upon the kidneys, but on other organs of the body. Patients operated on for some surgical trouble, often pass into a condition of their kidneys and a general condition in which opium is the chief factor, so that it is absolutely impossible to save them. This paper calls attention to the dangerous and destructive effect of the drug. What must be the effect upon a patient who has had a serious surgical operation? It causes a damming up of the secretions, irritating and inflaming the kidneys at a time when the stimulation of ether probably assists markedly in bringing about this condition. What must be the additional percentage of deaths from this cause alone? I have no experience in the particular line to which Dr. Mattison calls attention, but I have seen numbers of patients in surgical cases who, I have not the slightest doubt, have died from the opium treatment continued for a week or ten days. Not chronic opium-takers, but chronic opium-givers, men who batten-down their patients, covering up the dangerous condition. What must be the effect in these cases when, as has been pointed out in these other cases, patients are dying from kidney trouble produced by opium? I hope that the paper will teach some of us to leave opium alone.

Dr. John Aulde: I have been very much interested in the paper just read, but I would have been more benefited had the reader given us the advantage of his views in regard to the method to be pursued in the treatment of those cases where the kidneys have been damaged by the hypodermic use of morphine. I should like to have his opinion as to the advisability of using the hypodermic method in these cases, and whether or not the continuance of hypodermic medication will tend to perpetuate the disease which already exists. We know that when medicines are introduced into the system by the hypodermic method excretion takes place largely by the kidneys, a fact which has been demonstrated repeatedly with curare and other drugs, but when taken into the stomach, excretion is principally by the liver.

Dr. Mattison: Levinstein, whose experience has been much greater than my own, records a specific gravity of 1005. I have observed no case in which it was as low as this.

I am not prepared to answer the query of Dr. Cohen. My experience has not been sufficiently large to warrant any statement on this point. I, however, have a very firm conviction that the taking of morphine, especially subcutaneously, will induce decided renal change. There is a large proportion of the community, in every stratum of society, that is absolutely forced into taking the drug. They are forced to it by physical necessity. The larger number of cases that have come to me have been physicians. I have talked with these men closely, and I find that they have taken the drug simply to keep them up. The important point is this, that if the individual is under the necessity of taking the drug at all, my urgent advice is that the syringe be abandoned, and the drug taken by mouth.

In reply to Dr. Aulde, I would say that my own plan has been to at once abandon the syringe. I have done so, not because I thought the continuance of that method for a time would increase the damage, but because I believed that I attained a good effect when I broke the fascination of the syringe. I think that a moderate continuance subcutaneously, in cases requiring it, would not be necessarily injurious.

NEW YORK ACADEMY OF MEDICINE.

Section on Orthopædic Surgery.

Stated Meeting, November 21, 1890.

V. P. Gibney, M.D., Chairman.

DR. BEELY'S APPARATUS FOR MEASURING THE THORAX.

Dr. N. M. SHAFFER exhibited one of these instruments, which had been presented to him while he was in Berlin, by the inventor, Dr. Beely. A somewhat similar apparatus had been called, by Dr. Nebel, a *kyrtograph*. The apparatus consists of a series of narrow, parallel, steel bars, placed closely together, and sliding in a rectangular metal frame. Each bar terminates in a blunt point, near the end of which, on the under surface, is a metallic point, or stylus. This arrangement of bars looks not unlike a huge comb. On bringing the pointed ends against the chest, or any similar object having an irregular outline, the bars adjust themselves in the frame, so that the pointed ends form an outline identical with that of the object against which they were placed. A simple cam movement then clamps them in this position. The instrument is next laid upon a piece of paper resting on a sheet of felt, and the points on the under surfaces of the bars are made to puncture the paper by passing a small roller over all the bars successively. In this way, the desired outline is recorded on paper as a series of small punctures, about one-fifth of an inch apart. When taking a tracing from a patient while standing, an erect position is secured by means of a plumb-line fastened to a belt, which is buckled around the body. In order to secure still greater accuracy, the instrument is provided with a spirit-level. The exact level at which this transverse tracing of the chest is taken may be marked with nitrate of silver, so that tracings taken

at different times may be readily compared. With the patient in the prone position, the instrument may be used; but a longitudinal tracing, as of the spinal column, with the patient erect, is not within the contemplated scope of the instrument.

Dr. Shaffer said that he had made several tracings with this instrument, and he has been very favorably impressed with its action and accuracy.

Dr. John Ridlon said that he had seen Dr. Beely using it with the patient in the prone position, and that he had understood that its action was only satisfactory when employed in this way. At the Berlin Congress, Dr. Nebel had exhibited a much cheaper, but less accurately made instrument, constructed on the same principle. A series of round rods were placed parallel to each other, and made to slide through a large, round bar. The small bars terminated in buttons, which were applied to the chest. The outline was then transferred to paper by laying the machine on the paper and passing a pencil along the buttons.

Dr. A. B. Judson admired the mechanical features of the instrument, but thought that such tracings of cases of lateral curvature were of but little value, in view of the fact that the changes in contour occurred from day to day, as a result of differences in the general tone of the patient.

A CASE OF SUPPOSED EVACUATION OF A PSOAS OR LUMBAR ABSCESS THROUGH THE VAGINA.

Dr. Samuel Ketch presented such a case. A child, five and three-quarter years of age, of healthy parentage, and having a good family history, was admitted to the hospital on October 22, 1890, with the history of a fall six or eight weeks prior to her admission. Two weeks before she was presented for examination, she was first noticed to walk peculiarly, and she complained of "pain in her feet." She was thought to be suffering from hip joint disease by her attending physician. At the time of the examination, her general condition was fair, and there was no pain, and the motions at the hip joint were normal with the exception of a slight limitation of extension on the right side, when the patient was in the prone position. Close examination revealed a small kyphos in the lower lumbar region; the right hip was prominent, and relatively larger, and there was a feeling of fluctuation on that side. There was a discharge of pus from the vagina. The case was of interest, both on account of the unusual mode of evacuation of the pus, and because of the symptoms which had led to the diagnosis of hip joint disease.

Dr. Shaffer had seen the case just reported. He had met with cases where the abscesses of Pott's disease opened into the rectum, vagina, and bladder; and in one case of disease in the dorso-lumbar region, which had extended over a period of about twenty years, pus was discharged from the bladder at intervals of a few months, accompanied by the usual symptoms of acute abscess formation. The cases in which the abscess had opened in these unusual situations, had all done well, and he attributed this to the valvular opening through which the pus was discharged. In one of his cases, an abscess was found pointing into the rectum, and was purposely evacuated at this point by means of a trocar. The result had been extremely satisfactory. A similarly favorable prognosis could not be given where abscesses ruptured into the lungs. He had seen several of these cases, and in one, now under observation, which he considered unique, a boy with mid-dorsal disease, suffered at intervals from fever, accompanied by the expectoration of pieces of the cancellous portion of bone.

Dr. R. H. Sayre said that anatomical considerations would lead one to expect that owing to better drainage, abscesses opening into the alimentary canal would pursue a more favorable course than those which ruptured into the lung. He recalled a case where an abscess, situated on each side of the vertebrae, suddenly enlarged, and caused fatal asphyxia. The autopsy showed that "a saddle bag" abscess was situated at the bifurcation of the trachea.

Dr. J. K. Young of Philadelphia, said that he had recently seen a case of lumbar Pott's disease, in which the abscess had been evacuated through the vagina, and also through the abdominal walls. It had pursued a favorable course.

Dr. Thomas H. Manley had once treated a case of abscess in the mid-dorsal region, where evacuation had occurred through the umbilicus. It made a good recovery.

Dr. Agramonté suggested that the exact condition present in Dr. Ketch's case could not be affirmed until the vaginal discharge had been examined for gonococci.

The Chairman thought that such an examination was highly important, and suggested that search should also be made for the opening through which the pus was discharged.

Dr. Ketch, in closing the discussion, said that he was aware that the report of the case was somewhat premature, and had only been presented at the request of the Chairman for clinical material. He had not been able, as yet, to make the examinations suggested; but the rational symptoms, and the clinical history of the case seemed to warrant the position which he had taken. In an experience of thirteen years at the Orthopædic Dispensary, he had never before met with such a case, and had only seen one case in private practice; and in this one, Dr. L. A. Sayre had verified the condition. In this case there was a favorable termination.

An efficient wash for the nose and pharynx to be used by the patient at home should have the following characteristics:

1. It should be alkaline.
2. Its specific gravity should be a little less than 1,027, or about that of blood serum.
3. The temperature of the wash when used should not be below 100° Fahrenheit.
4. It should be of an agreeable odor, taste, and appearance.
5. It should be antiseptic.
6. It should be so medicated as to be appropriate to the condition of the mucous membrane of the nose and pharynx of the patient for whom it is prescribed.

The wash should be somewhat alkaline from the fact that alkalies have the power of dissolving mucus; and if a nose-wash is rendered somewhat alkaline by adding to it an alkaline sodium salt, we are simply following out the plan of nature, which, as already explained, pours into the nose from the blood-vessels of the mucous membrane a large amount of serum, which is alkaline from the sodium salts that it contains, and whose function is not only to moisten the inspired air, but also to render the secretions of the mucous glands more fluid. It is the presence of these salts that renders the watery discharges of the nose irritating when they are constantly flowing from the nostrils and drying upon the skin, so that they frequently produce eczema of the upper lip and alæ.

—Gleason, *Medical Bulletin.*

The Polyclinic.

PENNSYLVANIA HOSPITAL.

IN overcoming shock the blood should be kept in body as much as possible. This can be accomplished by bandaging and elevating the lower extremities. Hypodermic injections of atropine ($\frac{1}{150}$ grain) and morphine ($\frac{1}{8}$ grain) should be given to prevent the excessive perspiration that accompanies shock.—*Morton.*

The reports you occasionally hear of the inefficacy of antiseptic solutions in preventing suppuration, I believe can be attributed to the use of too weak solutions. This applies especially to the "bichloride solution." I never use it weaker than 1 to 1,000, and in some cases I use it as strong as 1 to 500; and I use it in almost every operation, excepting in abdominal operations.—*Morton.*

[The doctor knows whereof he speaks. Of the great number of operations he has performed within the last four months not one has ended fatally, and but a very few have been followed by suppuration, they being cases that were allowed to slough before entering hospital.]

For a case of sciatica occurring in a young man, Meigs prescribed 5 grains, increased to 10 grains, of potassium iodide, t. i. d. In the course of the nerve he ordered injections of a solution of morphine ($\frac{1}{6}$ grain) and atropine ($\frac{1}{120}$ grain) once or twice a day. These injections, he said, not only relieve pain, but have a decided curative effect. He enjoined absolute rest in bed.

The under surface of the tongue has a yellow color in jaundice, which should always be looked at for aid in diagnosing jaundice in colored people. There is a kind of dirty coloration in the conjunctivæ of colored people that makes unreliable as a witness of the deposition of bile pigment.—*Meigs.*

Catarrh of the gastro-intestinal tract is a frequent sequence of typhoid fever, constipation and a furred tongue being marked symptoms. To remedy this condition give large doses of the subnitrate of bismuth, for its soothing effect on the irritated mucous membrane. Diminish your dose as the pain and indigestion disappears. Enjoin a non-irritating diet. The bismuth acts in these cases as does paregoric in the constipation attending severe colic, which produces purgation by relieving the muscular spasm of the intestines.—*Longstreth.*

MEDICO-CHIRURGICAL HOSPITAL.

PROLAPSE OF THE UTERUS.

IN reducing a complete prolapse of the uterus, pass the sound into the uterine cavity to guide the uterus, while reduction is being made. The sound will prevent the uterus from becoming retroverted from its own weight, and, finally, retroflexed from intra-abdominal pressure. In effecting a reduction from the second to the first degree of prolapse, the uterus, perhaps, can be best elevated by the use of sponges attached to sponge-holders.

Recumbency, hot astringent injections, the ring pessory, the medicated tampon, and the T bandage will accomplish as good results as any of the well-known appliances in retaining the uterus in its position, unless the prolapse is consequent upon a badly ruptured perineum, which, of course, should be repaired. When prolapse of the uterus has become complete through perineal rupture, the organ can best be held in its position by means of a uterine supporter, with its abdominal and perineal bands. The abdomino vaginal supporter will hold the uterus at its proper elevation; but its fixed position on the outside of the vagina renders it incapable of yielding to the natural mobility of the uterus, and consequently it becomes painful, and contributes, at the same time, to the retroversion of the organ and its final retroflexion.—*Godfrey.*

PATHOLOGICAL ANTEFLEXION OF THE UTERUS.

Dysmenorrhœa affords the best evidence of the existence of pathological anteflexion of the uterus in imparous subjects. Its degree and duration determine the necessity for operative measures for relief, which consist in dilating the cervical canal and in straightening the uterine curvature. In dilating the canal with bladed dilators; in straightening the uterine curvature with the repositor or sound, and in retaining the uterus in its position with the stem pessary, all of the antiseptic care governing a surgical operation is required, and, in fact, this method of treatment should be looked upon in the light of a surgical operation.

The introduction of the stem pessary, for diminishing the uterine curvature, requires the close attention, and its removal is indicated upon the first appearance of irritation or pain. Unless the operative treatment is contra-indicated by cellulitis, as shown by undue tenderness in the anterior and posterior fornices, or by firm adhesions, its employment will generally give prolonged if not permanent relief.—*Godfrey.*

CHRONIC CERVICAL ENDOMETRITIS.

Caustic applications to the external os or to the lining of the cervical canal should not be used in the treatment of chronic cervical endometritis, for the reason that the resulting scar may implicate nerve filaments and induce neuralgia and reflex nervous derangements, or diminish, by contraction the caliber of the canal, and give rise to dysmenorrhœa. The application of two parts of tincture of iodine to one of carbolic acid will give good results.—*Godfrey.*

In acute bronchitis, to allay the distressing cough, soothe the mucous membrane, and to soften the phlegm, that it may be easily removed, give the following:

℞.—Morphinæ acetatis..... gr. $\frac{1}{20}$
Potassii " ..... gr. xx.
M.—S. A single dose.

—*Waugh.*

To maintain the integrity of the heart muscle when there is evidence of its failing, iron is the agent *par excellence.* It acts better in some cases by alternating it with strychnine.—*Anders.*

Always examine the urine for albumen before operating for cataract. If albumen be present when you operate, the edges of the wound may slough.—*Keyser.*

In the treatment of a case of infantile eczema (pustular), Shoemaker ordered a restricted diet, prohibited use of solids and all irritating substances. To clean out the intestinal track he prescribed calomel in 1 grain doses, to be taken once or twice a week, followed each time by a saline purgative, and to be continued for two or three weeks. Pepsin and bismuth, suspended in ʒss of glycerine, was ordered to be taken after meals. The integument to be bathed in

sweet oil until the incrustation was removed. Then the following is to be applied:

℞.—Sulphur subl..... ℥j.
Camphoræ..... gr. x.
Ol. anthemidis..... gtt. j.
Creasoti..... gtt. v.
Ung. aq. rosæ..... ℥ss.
" zinci ox. benzoat..... ℥j.
M.—Ft. ung.

After the child will have been under treatment until the eruption has been removed, the integument will have an erythematous appearance. To restore its natural hue the following will be given:

℞.—Sulphur subl..... gr. j.
Ext. malt fl..... f℥j.
M.—S. One dose. Repeat thrice daily.

This young lady (colored) comes before us complaining of a troublesome cough, which she has had for three months, causing her much loss of sleep. She does not remember of ever having fever or night sweats, but she feels very weak. Percussing her chest a clear, resonant note is elicited from the supraclavicular region, which, you know, is a favorable sign. Auscultation reveals a rhoncus in the large bronchial tubes, and moist, bubbling mucous rales. Sometimes a loud rhonchus like this masks the finer crepitant and sub-crepitant rales of the smaller tubes. In such cases we have to note the respiration, which is rapid when the smaller tubes are involved. Let us count her respirations—they number 22, which is not abnormal, allowing for the excitement of being before you. The fact of the rhonchus being heard on both sides is another favorable sign; whereas, if it were due to tubercular deposit, it would most likely be heard on but one side. We are more afraid of unilateral than bilateral abnormal sounds. The finer sounds (such as crepitant rales) are also more grave in their significance than the louder sounds (such as rhonchi). We have, then, before us a case, quite favorable in prognosis, yet will not admit of a spontaneous cure. There is a weakness in the constitution of this girl that will have to be remedied before her health can be restored. To secure this end, and repair whatever damage there may have been done to the lung tissue, there is no better agent than cod-liver oil, which we will give to our patient in this combination:

℞.—Ol. morrhuæ..... f℥iv.
Ol. eucalypti..... gtt. xx.
M.—S. Dessertspoonful t. i. d.

A little (2½ grains) of Dover's powder may be given at night, to allay cough. Stimulating applications to the chest will be of service. As a rule it is not advisable to give opium in diseases of microbic origin, for it has been found that it intensifies the activity of the microbe. Phthisical patients, who have been given repeated doses of opium, to allay cough, have suffered from an increase in the progress of the disease.—*Anders.*

In a case of incipient tuberculosis Anders prescribed the following:

℞.—Creasoti..... ♏i.
Syr. pruni Virg..... f℥j.
Elix. simp.....q. s. ad. ℥ij.
M.—S. One dose. Repeat four times daily.

When there is a troublesome cough without expectoration, he advises the addition of a sedative, such as the deodorized tinct. of opium, to the above. To arrest excessive tissue change he recommended the syrup of the hypophosphites of sodium and calcium. Regarding hygienic measures he said: "Try to disabuse your patient of the fear of 'catching cold' in going out. Caution him against wrapping himself with an undue amount of clothing. He should take moderate, but persistent outdoor exercise, and always wear woolens next to the skin. Let him eat that for which his appetite craves, provided it agrees with him."

Antisepsis is but a stepping stone to asepsis. In the use of the various antiseptic solutions you practically admit that you have allowed germs to get into the wound. Better to have *everything* aseptic before you begin an operation, then antiseptic solutions will be unnecessary.—*Laplace.*

In a case of gastric ulcer, in a female patient, Waugh advised the use of peptonized milk. As to medication he said: "In these cases the Germans give alkalies. They will do in plethoric people. In this case, however, iron is indicated. The constipation she complains of must be relieved by a laxative or an enema. To relieve the severe gastric pains small doses of morphine will be given, for its action as a local anesthetic. Silver nitrate, in one-fourth grain-doses every four hours, is a valuable agent. It forms an albuminate of silver over the raw surface of the ulcer, which compound acts as a protecting film to the exposed ends of the nerves in the ulcerated area, and in so doing allays irritation. It should be continued for four or five days, and given on a clean stomach, which can be made so by drinking a cupful of hot water. After exhibiting the silver salt for the time just stated, the stomach will be able to bear the iron salts. This plan of treatment, however, would not be indicated in the amenorrhagic form of the disease, in which the ulceration is due to a vicarious gastric hemorrhage. In those cases we would have to resort to such remedial and operative measures as would bring about a return of the blood to its proper channels."

Patient, male, aged sixty-eight, suffering from emphysema and nocturnal attacks of asthma, reported himself at Prof. Anders' clinic as practically cured. Two months ago he was placed upon the following treatment: Tr. ferri chlor., gtt. xv, t. i. d., to arrest degeneration of air vesicles; tinct. lobelia, gtt. x, every fifteen or thirty minutes, until paroxysm was relieved; potassium iodide, gr. v-x, t. i. d., for its action in relieving the capillary bronchitis arising from the passive congestion attending emphysema of the lungs. Auscultation of the patient's chest showed the lungs to be in a comparatively healthy state; no rales were heard, breathing was nearly normal, expiration being but slightly prolonged.

In removing a cataractous lens be sure that the fundus of the eye is normal. A diseased fundus would render the operation useless.—*Keyser.*

PHILADELPHIA HOSPITAL.

ACUTE TONSILLITIS AND PHAGEDENIC CHANCROID.

A MALE, aged twenty-two, of good physique, admitted to the venereal wards of Philadelphia Hospital suffering with chancroids, which had destroyed the greater part of the prepuce and attacked the glans. He was put to bed and the following lotion applied:

℞.—Ferri et potassæ tartratis..... gr. x.
Aquæ..... f℥j.
M.—Fiat sol.
Sig. Wash parts every three hours.

Internally:

℞.—Ferri et potassæ tartratis..... ʒij.
Syrup zingiberis..... ..... fʒj.
Aquæ bullientis..... fʒv.
M.—Fiat sol.
Sig. fʒij t. d.

Under this treatment he rapidly improved. About the sixth day after admission he complained of tenderness and swelling in his throat. Upon examination he was found to be suffering with acute tonsillitis. His temperature was 105.2, with severe rigors. The pus was at once evacuated, and he made a good recovery in a few days. The tinct. guaiac ammon. was given early as abortifacient without success, though it gave marked relief later. Dose, fʒj in milk as a gargle.
—*S. T. B.*

A convenient treatment for scabies, when it involves the body, is by means of the sulphur vapor bath. The patient is placed in a chair, and carefully surrounded with a double blanket, interposing a layer of cotton around the neck. About ʒij or ʒiij of sulphur sub. is placed upon a piece of tin and lit. The blanket must be as near air tight as possible on account of the fumes. In one case in which this was tried, where the whole trunk was involved, this method resulted in great improvement, and the case is now progressing to a cure.—*S. T. B.*

Dr. B. C. Hirst, in speaking of the various means used for overcoming the condition of sub-involution of the uterus, gave the following as the best combination to use:

℞.—Strychninæ sulphatis..... gr. $\frac{1}{20}$.
Quininæ sulphatis..... gr. ij.
Extracti ergotæ..... gr. j.
M.—Ft. pil. No. 1. S. At one dose.

INGUINAL HERNIA COMPLICATED BY HYDROCELE.

Here is a large mass that involves this man's scrotum, and, as you can see, it is as large as the man's head. When I grasp the tumor above, I feel a mass in my hand, and with little effort, I am able to reduce it into the abdomen. It is a direct inguinal hernia. When reduced there is still a large tumor that is translucent, distinctly sacculated and is an enormous hydrocele. I show you this case to impress upon you how large a tumor of this kind may become and the importance of a proper diagnosis. As this man is so far advanced in years it would not be well to resort to the radical means for a cure. The method that I use in treating *recent cases* of hydrocele is to draw off every drop of fluid with an aspirator and inject *pure carbolic acid.* Do not use the ordinary form of the acid, but take the pure crystals and dissolve them. The pure acid will sear the surface of the sack, will not be very painful, and will not be followed by slough, as will often be the case with the impure, weak acid. I do not use injections of iodine.

In old cases where the sack is thick, it is better to operate for the obliteration and removal of the sack.
—*Hearn.*

TWO CASES OF NERVE STRETCHING.

During the clinic hour of Dr. Hearn, Dr. Parker operated on a case for the purpose of stretching the sciatic nerve. Just how or why the process of nerve stretching accomplished relief in sciatica the doctor would not say—we do not know. In order to expose the sciatic nerve, a point was selected mid-way between the greater trochanter of the femur and the tuberosity of the ischium, at the lower border of the gluteus maximus muscle, and an incision carried from it down the posterior part of the thigh for four or six inches. The nerve is found behind the tendon of the bicepts muscle of the leg. After the nerve is found it is first drawn well down; then drawn upward with force sufficient to lift the leg. The sciatic nerve is capable of resisting a force of one hundred and eighty pounds before it will rupture. Every antiseptic precaution must be taken in the operation and the wound dressed antiseptically, and absolute rest in bed until union has taken place. Another point to be observed is to examine the nerve for a high bifurcation, so that both parts may be properly stretched. A Bohemian doctor demonstrated on the cadaver that the spinal cord was stretched by traction on the sciatic nerve, but whether this would be the case in the living subject is still in doubt. One thing is certain, and that is that the operation seems to affect the nutrition of the nerve, and often results in a cure. Dr. Hearn then operated on the other case in the same manner.

Dr. Charles K. Mills has just finished a very interesting and instructive series of lectures on nervous diseases before the students. As the hospital is amply supplied with a large variety of nervous cases, it is needless to remark that the doctor did not fail to avail himself of the best and most instructive cases.

In orchitis and acute hydrocele Horwitz advised multiple punctures to relieve tension of the effusion; strapping; applications of the ointment of iodoform and belladonna in nervous patients. Internally he prescribes the following mixture:

℞.—Tr. aconiti..... ♏j.
Morphinæ sulph..... gr. $\frac{1}{4}$.
Antimonii tart..... gr. $\frac{1}{15}$.
Magnesii sulph..... gr. xij.
M.—S. One dose. Repeat thrice daily.

If a man has heart disease, he should avoid high altitudes, for with the diminution of the external or atmospheric pressure, there is a corresponding increase in the cardiac activity. Hence, phthisical patients, with heart complications, should not be lured to the lofty resorts of valetudinarians. A pure, dry atmosphere at a low altitude is best suited for them. Nervous patients should not be sent to high altitudes. Their sleep is disturbed, and they become much excited, quickly passing into a state of nervous prostration.—*Curtis.*

Isaac Hamilton, a prominent farmer near Marshall, Mo., died, recently, of typhoid fever. His wife and daughter, it is alleged, believe in the doctrine of "Christian science," and for three weeks before his death the patient had no medicine or medical treatment. The Coroner returned a verdict to the effect that the deceased came to his death by the criminal neglect of those who had him in charge after medical treatment had been abandoned.

Dr. Benjamin, of Camden, N. J., gives the following for puerperal convulsions:

℞.—Pot. brom..... ʒiij.
Pot. iod..... gr. x.
Syr. tolu.,
Aquæ..... āā ʒij.
M.—Sig. Tablespoonful before dinner, supper, and at bedtime.

This was given about one week, when, to my satisfaction, all symptoms had disappeared. I was especially impressed with the rapid disappearance of albumen from the urine.

The Times and Register

A Weekly Journal of Medicine and Surgery.

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THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

"Whom the gods would destroy they first make mad."

IF the present management of the *Journal of the American Medical Association* is bent on its own destruction, it can be accomplished in no speedier manner than by inducing its friends to continue attacks such as have been made in the *North American Practitioner* in its last issue; the editor of which, as is well known, has been a leader writer under the present management of the *Journal* of the Association. It is certainly a breach of good taste to criticise a predecessor. We know of no journal in the world in which such a course has been pursued, and it would appear to an outsider that there are some things that had better not be spoken, and it is best to avoid saying things in the heat of discussion one might be sorry for afterwards. We do not desire to criticise the present editor of the *Journal* of the Association, his leader writers, or his method of conduct of the *Journal*, but if personal matters must be introduced into the discussion of a subject in which the individual members of an association are alone concerned, the issue can be met, and it probably will not be shirked by those directly concerned.

The question of the permanent place of publication of the *Journal* is one that should be discussed fairly, fully, and freely, on its merits; and it is simply begging the question for the opponents or the advocates of removal to go into a discussion of whether if the *Journal* is moved, or if the *Journal* is not moved, who will conduct its editorial columns. The question of the editorship is a question which the trustees of the *Journal*, elected by the suffrages of their fellow-members, are amply able to settle; and while personal warfare may be extremely entertaining for those who imagine that they are not concerned in it, it is seldom profitable, and not infrequently it proves a veritable boomerang. *Verbum sap.*

A WINTER CITY.

IN choosing a winter resort for invalids, the most important points to be considered are: climate, sanatory state, accommodations, accessibility, means of diversion, and cost. In the last few years Atlantic City has become so popular as a winter resort, that a consideration of its claims may not be out of place.

Seaside towns in general have a great advantage over those situated inland, in that they are not so cold in winter. Atlantic City appears to be specially favored in this respect; its mean winter temperature being several degrees higher than that of any other point on the Jersey coast. Rain runs quickly off the gravelly streets and soaks into the sandy soil, so that almost as soon as the rain ceases, one may walk out without overshoes. Malaria, formerly prevalent, has completely disappeared since the fresh-water ponds were filled up. The system of drainage now in operation is efficient; the sewage being drawn off to the works in the meadows, where it is disinfected, burnt, or converted into fertilizer. All wells are connected with this sewer system, or the owners are compelled to have them walled up and cemented, so that sewage is no longer allowed to percolate into the sandy soil, as of old. Before the present system of drainage went into operation, the soil of the island became pretty well saturated with sewage by the end of the summer season, although this was rapidly disinfected and carried off by the rise and fall of the tides. This probably gave rise to some sickness; and it may not be known to all our readers that Atlantic City now enjoys a thoroughly efficient system of drainage. The single objection to the present system is that no provision is made for carrying off surface water from the streets, etc. There are few, if any, cities with which this objection has as little weight as with Atlantic; as the soil so quickly absorbs water, and the number of animals to contribute street-dirt is very small; while even in the summer the streets appear remarkably clean to a Philadelphian.

Seaside resorts must be as far above suspicion as Cæsar's wife; and good sanitation is essential to their existence. Cities which live upon the favor of health-seekers cannot afford to neglect anything which tends to the comfort and well-being of their visitors; and the enormous amounts of money invested in Atlantic City are the best of reasons for insuring good sanitation and police. The citizens are fully aware that any serious deficiency in these respects would render ten millions of dollars unproductive, and even sweep these valuations out of existence. No other seaside resort has as much at stake as Atlantic City; and consequently no other offers as valuable a guarantee to the visitor.

The water supply is pure and abundant. The city water is brought from the main land, from a district where there are neither inhabitants nor factories

to pollute the streams. Besides this, several artesian wells have been sunk, which afford a supply of pure water.

A large number of hotels and numerous smaller houses now remain open during the winter, and the visitor has abundant choice in this respect. There are houses where the high tides come almost into the parlors, and others situated a few squares back from the ocean; so that those who love to fall asleep with the roar of the ocean in their ears, and those to whom this would be unpleasant, can both be suited. The increasing tendency to resort to Atlantic City in winter has caused the general raising of the houses above the ground, on brick foundations; and has resulted in many changes in the arrangements for heating. Even in the coldest northeast storms, the winter houses are comfortable. Nervous invalids often find isolated buildings, like those at Cape May Point, very unpleasant in rough weather; the loneliness and the exposure to high winds causing a feeling of insecurity. This is altogether absent in the Atlantic City hotels in the built-up district.

In the matter of accessibility, no other resort can equal Atlantic City. Three railroads bring it within an hour and a half's ride of Philadelphia, and allow of that easy communication with friends and doctor which adds so much to the invalid's comfort. From New York and Baltimore the distance is not great; in fact, the journey is nothing as compared to a trip to Florida, or even to Fortress Monroe.

It has been our experience in hospitals that patients never like the secluded portions of the building, but prefer rooms where there is life and movement, at the risk of no matter how much noise. If this be so with the sick, it is much more so with the invalid. The winter population of Atlantic City is large enough to allow a fair share of amusements; the electric railway renders every part of this island accessible, and there is always something of interest to occupy the time of those who are well enough to go about.

The cost of living at Atlantic City in cottages or at the hotels is about the same as at other resorts. Boarding can be had at from $10.00 to $25.00 per week. A seven bed-room cottage can be rented during the fall, winter and spring, for $30.00 to $50.00 per month.

The greatest deficiency of Atlantic City is the lack of suitable accommodations for very sick people. It does not require much argument to show that this class requires something very different from those who are comparatively well. The association of the two classes in the same building interferes with the proper catering to either. Illness that requires nursing and special diet is very expensive at a hotel, and even then the discomfort is great. For these reasons we hope that the day is not far distant when Atlantic City will provide for this class of her patrons; and that her claims will then be recognized as the most desirable winter resort north of Florida.

Annotations.

PREVENTION OF SCARLET FEVER AND DIPHTHERIA.

WE print herewith a full text of an act to prevent the spread of scarlet fever and diphtheria in the District of Columbia, which has just been passed by Congress. The passage of this act has been due to the energy and vigilance of Dr. John B. Hamilton, Surgeon-General of the Marine Hospital, a man who makes his own every interest for the furtherance of measures for public health and sanitation. All praise to such men!

AN ACT TO PREVENT THE SPREAD OF SCARLET FEVER AND DIPHTHERIA IN THE DISTRICT OF COLUMBIA.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That from and after the passage of this act it shall be the duty of every registered practising physician or other person prescribing for the sick in the District of Columbia to make report to the health officer, on forms to be furnished by that officer, immediately after such practitioner becomes aware of the existence of any case of scarlet fever or diphtheria in his charge; and in case such person shall fail to so report within twenty-four hours he shall be subject to a penalty of not less than five nor more than fifty dollars, and in case of a second offense the penalty shall not be less than ten nor more than one hundred dollars. In case no physician shall be in charge of such patient the householder where such case occurred, or person in charge thereof, the parent, guardian, nurse, or other person in attendance upon the sick person knowing the character of the disease, shall make the report above mentioned, and in case of failure to report shall suffer the same penalties as provided for physicians in this act.

SEC. 2. That it shall be the duty of the health officer cooperating with the attending physician to cause a suitable placard, flag, or warning sign to be displayed from the front of the premises or apartment where any one case of scarlet fever or diphtheria is present. It shall be unlawful for any person to remove such placard, sign, or warning flag, when so placed, without permission of the health officer, and it shall be the duty of the said health officer, in conjunction with the attending physician, to cause the premises to be properly disinfected, and to issue the necessary instructions for the isolation of the patient.

SEC. 3. That no person shall visit or attend any public or private school, or place of public assemblage, or appear on the public streets or in the parks while affected with scarlet fever or diphtheria, and any adult person, parent, or guardian of a minor convicted of having knowingly violated the provisions of this act shall, upon conviction, forfeit and pay a sum not less than five nor more than fifty dollars; and it shall be the duty of physicians, while in attendance upon cases of scarlet fever or diphtheria, to exercise such reasonable precautions to prevent the spread of the said diseases as may be prescribed by the health officer of the District of Columbia in regulations.

SEC. 4. That no person who has convalesced from diphtheria or scarlet fever shall be allowed to attend any public or private school, seminary, or college until the attending physician shall have furnished a certificate that said patient has completely recovered, and that there is no danger of infection to other persons. All persons who shall, after convalescing from diphtheria or scarlet fever, visit schools, seminaries, or colleges, without providing themselves with such certificates, shall suffer the penalties provided for in section one of this act.

SEC. 5. That the provisions of this act shall apply to every ship, vessel, steamer, boat, or craft lying or being in the rivers, harbors, or other waters within the jurisdiction of said District, and to every tent, van, shed, hovel, barn, outhouse, cabin, or other like place, as if the same were an ordinary dwelling.

SEC. 6. That the word "regulations," as herein used, shall be held to mean also rules, orders, and amendments. The words "person in charge thereof" shall be held to mean the owner, his agent or factor; the tenant, his clerk or representative; the nurse, or any one or more persons who by reason of their position are charged with the management or care of the premises, or interested in the person afflicted. The words "practitioner of medicine," or "practitioner,"

shall be held to include all persons who undertake to treat persons afflicted, either gratuitously or for pay.

SEC. 7. That any person who shall knowingly make, sign, or deliver any false report or certificate herein provided for, upon conviction thereof in the police court of said District, shall be fined not less than five nor more than fifty dollars, and, in default of payment thereof, be committed to jail for not less than one nor more than twenty days.

SEC. 8. That the expenses necessarily incurred in the execution of the provisions of this act shall be borne from the general appropriation for the maintenance of the health department of the District of Columbia, and the jurisdiction of civil and criminal procedure in the enforcement of this act is hereby vested in the police court of the said District, with the same right of appeal as in other civil and criminal trials in said District.

THE CHIGGER.

DR. H. M. WHELPLEY, F.R.M.S., has issued on a single sheet an interesting paper on the Chigger insect (leptus irritans), being the continuation of a paper read before the St. Louis Microscopical Society, and published in the *Popular Science Monthly* for last February. This human parasite is found in the Eastern and Southern States, as well as throughout the Mississippi valley. It also attacks horseflies and is said to be very troublesome to young chickens. It will be associated in the minds of most people with the blackberry vine, and all who delight in berrying will recall the ravages on their flesh and temper which this little "tick" has made.

A NEW CURE.

A PARISH priest in Bavaria has devised a new "cure," which the patronage of a Rothschild bids fair to render fashionable. The priest's idea is to increase the resisting power of the skin; for which purpose he dresses his patients in coarse linen underclothes, plunges them into cold water, throws on the clothing without stopping to dry the skin, and runs them for as long a time as he considers wise. If snow can be found, they run through it barefoot; if not, through wet grass or cold water; for half an hour. This is followed by a brisk walk.

There are the elements of sound sense in this treatment; and it is worth while to note how much more of true piety there is in this priest's works than in the blasphemous stuff miscalled Christian science. One says: Mortify the flesh; restrain the lusts of the body, and by a pure life rid yourself of the disease brought about by indulgence in ease and pleasure. The other says: Don't bother yourself to do anything, but just tell God to come and pick you up. It's His business.

THE CENSUS OF 1890.

THE Superintendent of the Census Office issues a bulletin giving statistics and deductions concerning the recent enumeration of the population, from which we extract the following facts as likely to be of interest. The increase of population between 1870 and 1880 was 11,597,412, being a percentage of 30.08; increase from 1880 to 1890, 12,324,757, being a percentage of 24.57. It will thus be seen that while there is a small percentage of increase, the absolute increase for the decade just closed is 727,345 more than the increase during the previous decade.

The greatest increase has been in the Northern Central Division, including the States of Ohio, Indiana, Illinois (in which there has been a decrease), Iowa, Dakota, Nebraska, etc., and in the New England and Middle States. In single States, the increase has varied. The population of Dakota (North and South) has increased 277 per cent. Most of that increase being in the first five years of the decade; that of Nebraska, 134 per cent.; while the population of Washington State has increased from 75,116 to 349,516, being an increase of more than 365 per cent.

Of the Atlantic States, the greatest increase has been in New York, Pennsylvania, Massachusetts, and New Jersey, while in Maine, New Hampshire, and Vermont, the rate of increase between 1870 and 1880 has not been maintained.

In general, it may be concluded that those sections of the eastern part of the country in which manufactures have flourished have increased, while there has been a corresponding decrease in those Eastern States in which farming formerly constituted the principal industry; whereas the phenomenal increase in the population of the far West, and particularly of Dakota, has been due to the increased facilities for agriculture and grazing.

The census shows the present population to be 62,480,540.

HABITS OF DOCTORS.

DR. J. C. SESTON, of Rushville, Ind., writing in the *Indiana Medical Journal*, says: Let us take a view of the doctor and some of his habits. Sombody has said that the worst habit one can form is the habit of having regular habits. It is not necessary to add that he was not a physician, for there is no set of men, the world over, who acquire so quickly or cling so tenaciously to their habits. Whether the daily routine of cases is so similar, or our work presents such great diversities, or one has no work at all, it is strange, but nevertheless true, that from all these various standpoints we form habits of moving in the same ruts. It is claimed that the habit of attending church regularly is the hardest one to cultivate; this may or may not be true among most people, but with doctors the habit of keeping clear of forming habits is the hardest one to become our second nature.

Some treat the symptoms as they arise, regardless of cause. Such a physician is very likely to be smooth in his bearing, oily to the touch, and nurse his case as well as his patient. He will know all the words of learned length and thundering sound, is leisurely and self satisfied, dislikes innovations, and holds fast to that which has the merit of being old. In nearly every matter under the sun he would say: "Let nature take her course."

Then some have the habit of being loud-voiced and pompous, blustering and determined. His idea is to grapple with a disease and throw it. He looks upon the patient as a battle-ground, disease his natural enemy, and he goes at it with bare knuckles. His head is well developed about the mastoids, and he gives a medicine because it will do good. By nature and by habit he is a fighting man, and the worse his patient becomes the closer will he stick by him; and even after his patient has gone the way of all flesh, he still fights it out with the estate.

Did you ever see the doctor who looked wise; who had the habit of being grave and even grim; who was so deliberate that the act of taking out a watch and examining the pulse, was a procedure fraught with the most weighty importance? You know how careful he is of all the forms and ceremonies; now he will never offer an opinion until he gets yours. This is a habit which has grown clearly away from the affectation it resembles. This is the kind of doctor to travel—"on his shape."

Letters to the Editor.

FLORIDA ON WHEELS.

IN view of the series of sketches in reference to "The West Indies as a Sanitarium," which have appeared in THE TIMES AND REGISTER, some one of the enterprising newspapers or publishing firms in that latitude should take a few lessons from the State of Florida, for instance, and issue a Trade Edition similar to that of the *Times-Union*, Florida's representative daily, which is a marvel in the history of Florida journalism.

Besides, among other features contributing to keep Florida to the front, is the unique conception of concentrating as much as possible of the specialties in agriculture and mineral capability of the State inside of a railway car, sending it up and down the country, and has probably done Florida more good than any scheme yet tried. W.

ELECTRICITY IN GYNECOLOGY.

I ENDORSE Dr. Hutchinson's letter in last TIMES AND REGISTER—every word of it.

If Dr. Price expressed himself as reported, such an antiquated, fossilated, "back-number" expression of professional ignorance is amazing.

It takes a Job-like supply of the cardinal virtue to notice a statement of one who so little knows what he is talking about.

There are some things better unsaid—among them his assertion—for 'twould have been vastly more to his credit, and that of his profession, if, along *that* line, he had "kept silence." The writer works in a field special and unique—see Notes on New Remedies, October, 1890, copy furnished if desired—and his opinion, based on experience, of galvanism for the relief of neuralgic pain, is soon stated: It is the *Krupp-gun among anodynes.*

Dr. Price is behind the times—he surely is, and his presumption in thus arraying himself against some of the best attested clinical facts that have ever gone into history, is great. Let him attend a course in electro-therapeutics. J. B. MATTISON, M.D.

BROOKLYN, 314 STATE STREET.

ADULTERATED VINEGAR.

A FEW days ago I was invited to address the Great American Agricultural Union, at Burlington, New Jersey, and in course of the subsequent discussion, I learned that the great fruit-growing county of Burlington is so flooded with a spurious article, called "vinegar," sold at eight cents a gallon, that the farmers can find no sale for the genuine article, made from apples; and, in consequence, thousands of bushels of apples are permitted to rot under the trees.

As chairman of Committee on Nostrums, Proprietary Medicine and New Drugs, of the American Association for the Study and Cure of Inebriety, I have, for the past two years, been antagonizing dangerous patent medicines, especially those containing opium, alcohol, or other poison, and you have been kind enough to publish some of the results.

I wish now to call the attention of the profession especially to this spurious vinegar, threatening, if not already invading our city, and also to request physicians in every section to aid the committee in our warfare against this great and growing evil, by writing me any information relative to the fact, or injurious consequences of the traffic in fraudulent preparations for human consumption, whether as food, beverage, or medicine. N. ROE BRADNER, M.D.

WISSINOMING, PHILADELPHIA.

Book Notices.

A TEXT-BOOK OF PRACTICAL THERAPEUTICS; With Especial Reference to the Application of Remedial Measures to Disease, and Their Employment upon a Rational Basis. BY HOBART AMORY HARE, B.Sc., M.D. Octavo, pp. 632. Cloth, $3.75; leather, $4.75.

For students' uses, this work is rendered unfit by the absence of any sort of a classification of remedies; without which the task of learning therapy is well-nigh impossible. On every page are errors of grammar, rhetoric, and proving, that speak of either great carelessness or great haste in preparation. The studies upon the physiological action of drugs, that make Wood's magnificent work so valuable, are not to be found here. Nor is Bartholow's wealth of resource, nor his vivid expression. The newer remedies are described very briefly, but with excellent judgment; and in this particular the work is commendable. But the lack of clinical experience shows through every page. After reading the sections on diphtheria and typhoid fever, it is difficult to believe that the author ever could have attended a serious case of either. There are, however, ample evidences in the book of ability far above that of the closet physician, and in ten years from the present, Hare's Therapeutics may have grown into the standard text-book of the day.

TRANSACTIONS OF SOCIETIES.—We are in receipt of the Transactions of the Medical and Surgical Faculty of the State of Maryland, containg a report of the proceedings at its ninety-second annual session. Some of the subjects discussed follow: Some Practical Points on Hernia, by Dr. Robert W. Johnson; The Early Detection of Pulmonary Consumption, by Dr. William B. Canfield; Typhoid Fever: Its Prevention and Treatment, by Dr. Joseph T. Smith; A Review of Hypnotism, by Dr. George J. Preston; Persistent Headaches and How to Cure Them, by Dr. Julian J. Chisholm; also reports of the sections. All of the papers are able and well written, and reflect great credit on the society.

We have also received the Transactions of the American Otological Society, containing the papers read at the Twenty-third annual meeting held last July. Among the contributors the following well-known names appear: Drs. Charles H. Burnett and B. Alex. Randall, of Philadelphia; Drs. Albert H. Buck, Owen B. Pomeroy, and Huntington Richards, of New York; Dr. Samuel Theobald, of Baltimore; Dr. Charles A. Todd, of St. Louis; and Dr. Lucien Howe, of Buffalo.

SOME GOOD ADVICE ON PLEURAL FISSURE.—When it is believed that phthisis exists, it is better treatment to leave the pleura alone, if possible. It is not a bad thing to have compression of the lung in tubercular involvement, as it tends to limit the progress of the trouble and define its boundaries. Often, when the pleura is full of pus, it will force a fistulous opening into the lung, in which case one must be governed by the extent to which the cavity is emptied by expectoration. When it is discharging freely, the fistulous opening being low down, the lung expands more and more against this pyo-pneumo-thorax; then it is better, considerably, in the presence of tubercular trouble, to leave the condition of things as they stand. If the fistula is high up in the pleura, discharges will escape with less freedom, hence, here drainage should be established.—Pepper, *Med. Age.*

The Medical Digest.

FRENCH NOTES.

By A. E. Roussel, M.D.

Treatment of Frost Bite (M. Brocq).—

1. Bathe the hands in a decoction of walnut leaves; dry.
2. Friction with camphorated alcohol.
3. Powder with the following:

Salicylate of bismuth	150 grains.
Starch	1,350 "

4. To calm the itching, rub with

Glycerine,	
Rose water	āā 12 drachms.
Tannin	2 grains.

Then powder with No. 3.

5. If ulcerations exist, envelop with walnut leaves soaked in hot water.—*Revue de Thérapeutique.*

Non-Operative Treatment of Vaginismus. (Lutaud).—Before submitting patients suffering from vaginismus to operative treatment, which consists in the dilatation of the vaginal spincter during anesthesia, Lutard advises a trial of the following curative treatment:

Introduce into the vagina each night the following suppository:

Iodoform	15 grains.
Extract of belladonna	8 "
Cacao batter	150 "

For one suppository.

Inject three times daily one quart of hot water, to which is added one teaspoonful of carbonate of soda; then apply the following solution by means of a brush:

Chlorhydrate of cocaine	30 grains.
Distilled water	1 ounce.

This treatment should be continued for one month. Attempts at coitus should be practised every two or three days after having applied cold cream to the vulva and penis.

An accouchement very often causes a disappearance of the vaginismus. Lutaud recommends a hypodermic injection of ⅙ gr. of morphine before coitus. The sedative action of the morphine acting more especially on the genital system may permit coitus, and often results in pregnancy, and as a result the cure of the vaginismus.

—*Journal de Médicine de Paris.*

Solubility of Naphthol-β.—M. Charrin remarks that a saturated solution of boric acid in water increases the solubility of naphthol-β from 0.22 to 0.70 or 0.80. The temperature influences this solubility. The antiseptic power is increased, as demonstrated by experiments made by M. Charrin.

—*La Bulletin Médical.*

La Médecine Moderne informs us that physicians who desire to obtain Koch's lymph should write to Dr. A. Libbertz (Berlin, N. W. Luneburgerstrasse, 28 II.)

Le Bulletin Médical, in a well written article upon Koch's discovery, discusses the probabilities as to the nature of the remedy, and arrives at the same conclusion as ourselves, namely, that everything points to a sterilized culture fluid of the bacillus tuberculosus as the active agent.

Fink, in the *Indian Medical Gazette*, reports a case of enlarged spleen with ascites, successfully treated by the inunction of biniodide of mercury ointment, and tapping. Indian surgeons speak so highly of this treatment for splenic enlargement that it should be tried in our malarial districts.

An Efficient Tonic.—The old adage, "An ounce of prevention is worth a pound of cure," never fails to be on our lips, or to find an echo in our experience. For some time past physicians on both sides of the Atlantic have been in search of a remedy or a preventive for la grippe; and New York doctors, have according to the New York *Press*, given very strong testimony in favor of Reich's Tokayer Ausbruch as a tonic of great strength and purity. It has been found of special value in cases of debilitation, and it is believed that if it be applied to a run-down system, such an influenza as the grippe may be avoided. Lorenzo Reich, 334 Fifth avenue, New York City, is the importer.

Gangrenous Carbuncle.—In this case the carbuncle was very large, covering the whole of the back of the neck. All the tissues down to the spinous processes of five cervical vertebræ were gangrenous.

The most concentrated solution of sulphate of zinc and dilute sulphuric acid was applied over the carbuncle by means of absorbent cotton continuously, and injected into the sloughing mass also. The patient took the tincture of iron, quinine, and strychnine internally; also nitro-glycerine, one-hundredth of a grain every three hours, as there existed great general prostration.

The local and general treatment enabled the system to arrest the sloughing, to establish improved vital action, throw off the sloughs and heal the very large wound.—Brown, *Weekly Med. Review.*

Antipyrine.—While it is true that antipyrine is given for the purpose of subduing the fever of phthisis, we must not lose sight of the fact that it has a capital influence on this disease after the fever has subsided. Phthisis is undoubtedly a constitutional and not a local disease, depending ultimately on a depreciated nervous system, and it is in virtue of its selective affinity for the nervous system that antipyrine acts as an antipyretic, and, associated with other well-directed treatment, it yields the beneficial therapeutic influence in this as well as in all other nervous diseases. It should, therefore, be continued in smaller doses after the fever has gone. In conclusion, it must be added, that if it is given for a protracted period it produces a rash of the skin, which can, however, be obviated by alternating it with phenacetine.

—Mays, *Jour. Amer. Med. Assoc.*

Peroxide of Hydrogen as a Sterilizer of Milk.—Dr. Heidenhain (*Centralblatt f. Bakt, u. Parasitenk.*, Bd. viii, No. 16, October 8, 1890), referring to Dr. Altehoefer's researches on the use of peroxide of hydrogen in the disinfection of water, says that it may also be useful for sterilizing milk, although he is not able to say as yet how the digestibility of milk so treated will be affected. He finds that children take it readily, and that the peroxide, mixed in the proportion of five or six tablespoonfuls to one litre of milk, does not cause the milk to curdle or to become sour, even when it is left in a room at summer temperature for forty-eight hours, the slight acid reaction with litmus paper being due to the action of the disinfecting material and not to the production of lactic acid. The cream that rises is so sweet that butter cannot be made from it for a very considerable length of time. If further researches confirm these results

and are in other ways satisfactory, there is some hope that a long-felt want will be met. It will in any case be a great advance in the treatment and preservation of milk.—*British Med. Jour.*

Grafting the Thyroid for Myxœdema.—The operation of grafting the thyroid in a case of myxœdema has again been performed with success. The patient was shown by M. Merklen, at a recent meeting of the Société Médicale des Hôpitaux in Paris; the thyroid graft was taken from a living sheep at the time of the operation; no antiseptics were used, but the graft and wound were kept carefully aseptic. Healing occurred by first intention, and the patient, a woman, aged forty-one improved considerably. The improvement appeared to be due in great part to the arrest of metrostaxis, from which the patient had previously suffered for months at a time; the hemorrhage ceased three days after the operation, and had not recurred when the report was made three months later. The swelling of the face had decreased, the pseudo-lipomata diminished, and the mode of speaking became more natural. The graft, which consisted of one of the lobes of the gland, was inserted beneath the skin in the right submammary region.—*British Med. Jour.*

Treatment of Tonsillitis.—In an article in the *Indian Medical Gazette*, Hehir recommends pilocarpine in doses of $\frac{1}{8}$ grain every two hours, to reduce the tenacity of the secretion. The drug used in India is, perhaps, of poor quality, as such doses here produce much more than the "slight salivation" aimed at by Hehir.

He finds few cases benefited by aconite; rapid relief ensuing in only two cases out of seventeen, and both these were children. Locally he recommends steaming, and the application of cocaine in 6 per cent. solution, and of powdered guaiac resin. Internally he gives tartar emetic, in doses of grain $\frac{1}{16}$ every two hours; adding ammonia or strephanthus to combat depression if excessive. He also believes that port wine is of local value, as well as the best stimulant. Further, he advises concentrated, liquid food, the stereotyped initial mercurial purge, small incisions into the affected gland, and tepid, antiseptic gargles. By these means he reduces the duration of the attack to three days.

The *officiat*, or second grade of practitioners in France, has long been threatened, and appears now to be on the point of extinction. The Chamber of Deputies some time since appointed a committee to examine and report upon the subject, and the result of its deliberations is entirely in favor of suppressing the *officiat*. The report presented to the Chamber states that there is every reason to expect that the number of doctors of medicine that will graduate in future will be quite sufficient for the needs of the population, especially if more protection is afforded by the law against the encroachments of quack and of foreign practitioners. It is also pointed out that not only the great majority of medical men, but of the existing *officiers*, are in favor of the suppression of the lower grade. The number of candidates for it has of late decreased considerably, and since 1883 the course of study and the examinations have been raised to a level not very much inferior to those required for the doctorate. The report recommends that the existing *officiers* be admitted to the doctorate on passing two clinical examinations. It is greatly to be desired that the whole medical profession should possess the same diploma—viz., that of Doctor of Medicine—as is now (according to the committee) the case in Germany, Austria, Italy, Belgium, Holland, and Spain. Here the committee's information must be considerably at fault, for in Germany, Holland, and Spain practice is by no means confined to M.D.'s.—*Lancet.*

Cure of Gangrene.—I had a case of gangrene of the third finger which extended rapidly into the hand in spite of all I could do by following the directions of all authorities I have seen on the subject. The purplish color advanced steadily under the serous bleb, until it reached the middle of the metacarpal bone. In the palm this color was not perceptible, owing to the thickness of the skin, but it presented a peculiar tallowy color to a corresponding extent.

Believing that any further advance would entail a loss of part, if not the whole, of the hand, I felt justified in indulging in an experiment that seemed to me likely to succeed. I immersed the hand in alcohol, contained in a large pitcher suspended over the patient, as he lay in bed, elevating the hand to prevent swelling of the arm. The alcohol was kept warm by means of a coil of rubber tubing in the bottom of the pitcher, through which hot water was kept flowing.

The advance of the dreaded purple color was checked. The already gangrenous tissue assumed a hard, cooked appearance. I continued this plan of treatment for about sixty hours, when I replaced the alcohol by a boracic acid solution, kept hot by the same apparatus. This acted as a most efficient poultice, and in a short time the dead tissue was cast off, fortunately leaving enough live tissue next the bone to throw out granulations. In time the hand and finger made a perfect recovery.

—Allingham, *Canada Lancet.*

Umpfenbach adds something to our knowledge of *orexin hydrochloride*. Experiments made on himself showed that a single dose of four grains always produced a sensation of more than usual hunger, which as a rule lasted for some days. In two cases of anæmia, a convalescent from influenza, and a man with chronic gastric catarrh, the remedy was also successful, with one exception (an anæmic girl). These patients were all sane. Of the inmates of the asylum twenty-five took orexin for want of appetite, dependent on bodily (four cases) or mental diseases (twenty-one cases). Out of the four cases of the first-class three were benefited; of six hypochondriacal and hysterical patients the effect was produced in five; eleven cases had to be fed artificially through a stomach tube; eight grains of orexin given to these twice a day mixed with their soup. In five of these eleven, hunger was so stimulated that they took food themselves for some time; in one the effect was only transient, and in the five others absent. Of the four remaining cases of the second-class appetite was improved in only one. Suggestion was avoided as far as possible, and gentian was not combined with the orexin. Unpleasant after-effects were not observed. In conclusion, the author says that in orexin we have a really useful stomachic, though like all medicaments, it is not in every case completely successful. A similar conclusion was reached by Dr. Reichmann (Giessen), who gave it in thirty-six cases.

—*Prov. Med. Jour.*

Mosquera's Food Products—Beef Meal, Beef Cacao.—Parke, Davis & Co., whose reputation for original work has long been established, announce that after thorough study of the various food products

they can now supply preparations which will fulfil all the requirements for therapeutic and dietetic use.

They are now prepared to supply Mosquera's Food Products—Beef Meal and Beef Cacao—of which a careful chemical examination has been made, which has led to the following decisions having been arrived at:

Mosquera's Beef Meal is a perfectly pure predigested meat, containing all the nutritious constituents of good lean beef, half of which are in soluble form, ready for immediate assimilation, and the other half easily digestible by the gastric and pancreatic juices. Therefore the entire preparation, being practically dry, is composed of nutritive matter, containing about 40 per cent. of soluble peptone and albumose.

It represents, in actual nutritive value, at least six times its weight of good lean beef.

It is perfectly palatable, and will be tolerated with ease by the most delicate stomach.

It admits of being administered in a variety of forms, thus avoiding monotony in the food.

It is the most nutritious as well as the most economical concentrated food.

Mosquera's Beef Cacao consists of equal parts of beef meal, sugar, and a superior article of Dutch cacao. It does not require cooking, but may be mixed with warm milk, exactly like ordinary chocolate, and so completely is the taste of the beef disguised that it cannot be detected. Requiring, therefore, no previous preparation, it is most conveniently administered.

Antituberculous Vaccination in France.—M. Charles Richet, in the *Revue Scientifique* of November 22, places on record certain experiments in antituberculous vaccination which he carried out in the early part of the present year in conjunction with M. J. Héricourt. He speaks very modestly of his results, and expressly disavows any wish to have it believed that he claims priority over Prof. Koch. As, however, the latter has, up to the present, published no details as to his method of procedure, M. Richet thinks it well to make his own results public simply as a matter of historical fact. The experiments were made exclusively on rabbits, and the following is M. Richet's account of the method which was adopted. Old tubercle cultures were exposed for some time to a temperature of 100° C., so as to kill the living germs, leaving the chemical substances produced by the microbes almost intact. The inoculation of the material thus obtained had, according to M. Richet, never been tried before, or only with negative results. The first experiment was made on April 18, 1890. Of four rabbits vaccinated with this substance, and then inoculated with tubercle, only one died on the forty-second day, not of tuberculosis, but of a tuberculous complication (vertebral abscess), which M. Richet calls an altogether different thing. If this case is eliminated, together with four out of twenty control animals which died of causes independent of tuberculous infection, the results of the experiments were as follows: Of 3 vaccinated rabbits, none died; while of 16 control rabbits, 12 died. In a more recent series of experiments, 5 rabbits were vaccinated, and 3 were used for control. The inoculation was made with very active virus, which was injected into the veins. Under these circumstances inoculated rabbits invariably die within a very short time. On the thirtieth day, of the 3 control rabbits 2 were dead and the third moribund, while the vaccinated animals were alive and perfectly well on November 19, and there was every reason to anticipate that they would continue so.—*Brit. Med. Jour.*

Friedreich's Ataxia.—The patient, a boy aged ten years, was brought to the Barisal Charitable Dispensary on the 7th of August, for a disorder of locomotion. The father stated that the child had enjoyed good health until the age of five or thereabouts, and that his gait then began to alter, becoming awkward and unsteady. It gradually grew worse, and now it is uncertain and tottering, the child walking with his legs placed far apart. Romberg's symptom is not present: there is no nystagmus or double vision, no oscillation of the head or trunk, no rigidities, paralysis or wasting of muscles, no girdle sensation, or anæsthesia anywhere. The knee-jerk is absent on both sides, nor can ankle clonus be produced. The mental faculties are not affected, the boy having a very intelligent face, and replying promptly to any question addressed to him. There is, however, a notable disorder of speech. It is not the "staccato" or "scanning" utterance of insular scelerosis, but consists rather of indistinctness and thickness of speech, so that what the patient says is almost unintelligible. This symptom has developed of late, he being able to talk quite distinctly when younger, and the alteration in his speech was first noticed two or three years after the first sign of disordered locomotion.

Another peculiar symptom is a strange kind of cough, which is evidently neurotic in character. It is frequent, hollow, short—not paroxysmal—and is unattended with expectoration. There is no apparent cause for it, the ears, throat, and thorax having been examined with negative results; while the general symptoms point against its relation with any kind of digestive disorder.

The family history, as far as can be ascertained, is good. The patient's father, who accompanied him, is a healthy man without a neurotic history, nor can insanity or any other neuropathic tendency be traced on the mother's side. The patient has two younger brothers, both of whom are perfectly healthy.

—Brown, *Indian Medical Gazette.*

The Treatment of Sympathetic Ophthalmia.—M. Abadie read a paper on this subject. Sympathetic ophthalmia of the true kind is regarded, since the labors of Leber and Deutschmann, as an affection owning a microbic origin. The microbes coming from the infected focus in the one eye—following a traumatism, for instance—gain little by little the deep parts of the eye, then, penetrating the chiasma, finish by gaining the optic nerve of the side opposite. Now, in order to combat these microbes, the enucleation of the diseased eye was empirically practised. If this be done sufficiently early the propagation of the microbes is probably arrested. But what, he asked, was it best to do when, an eye being wounded, sympathetic ophthalmia declared itself in the opposite eye. In enucleating early the diseased eye, one removed at once, the principal pathogenic focus, the microbes, being as yet but few in number, in the other organ, may not have gained sufficient headway to destroy the healthy structures. Cure is thus quite possible, especially if it be encouraged by mercurial inunctions. Of the microbicidal action of mercury there was no question. If the enucleation, on the other hand, is practised too late without the addition of the mercurial inunctions, it will usually be found that the loss of the second organ of vision results. In conclusion, he said that he would reserve enucleation for those exceptional cases where the destruction of tissue was

so great as to leave little ground to hope for recovery. But before proceeding to enucleation he would first apply the galvano-cautery to the various surfaces of the wound and afterwards inject a drop or two of a sublimated solution of 1 in 100. When in spite of all, either because the case was seen too late or the enucleation was not sufficient, one had to deal with the single eye already profoundly attacked by sympathetic lesions, he advised, before undertaking an operation destined to re-establish vision, waiting until the morbid processes or, in other words, the virulence of the microbes, were got under by repeated injections of a drop or two of sublimated solution.

Peculiar Febrile Affection Prevailing in Nebraska.—I desire to report the general features of a fever that was very prevalent here this fall. The patients would feel indisposed a day or so, then take a light chill, followed by fever of one to three degrees; some cases having the second chill on the next day. Then began a continued fever, ranging from 103° to 105°, usually with little or no pain; no appetite; some having diarrhœa, others constipated; not sleeping for many nights unless having aid.

Of all my remedies, phenacetine gave the best results, given in three-grain doses every three hours. Usually there was no coat on the tongue to speak of, merely a light fur, on a beef-colored tongue, for which I ordered lemonade, ice-cold, or oranges, taken bountifully; which corrected the color of the tongue in all cases. To break the fever I usually gave tincture of gelsemium, ʒj in ʒiv water; of this I ordered one teaspoonful every hour, until the proper time for sleep, then let the patient rest until morning if he could sleep. If not, I gave phenacetine, which not only induced sleep, but in all cases lowered the fever nicely. This course I pursued daily, keeping the patient covered up well until a thorough perspiration occurred, which usually took place in forty-eight hours. I then gave phenacetine every four hours in the morning, and the gelsemium every four hours in the afternoon. Result: not a case lost. Of course, diarrhœa or constipation was looked after. Quinine seemed to exert no good results. There was but little, if any, malaria present in any case, which accounted for the quinine failing to be of any benefit.

This condition of the system was brought about by the continued excessive heat and drougth of the past summer. It could not be malaria, as the air was excessively dry and hot, and there was no decomposition of vegetation going on.

—Humphrey, in *Med. Summary.*

Bromides in the Treatment of Epilepsy.—With the introduction of the bromides came a new era in the treatment of epilepsy. It enabled physicians to obtain a control of the disease hitherto unapproachable. That it has not gained a much greater success than has already been accorded it is owing to lax methods on the part of physicians, and lack of perseverance on the part of patients.

As the bromide treatment must be continued for years, the ill effects of the drug must be carefully studied, that they may be avoided as far as possible. These are: 1. Disturbances of the digestive tract. These can usually be avoided by giving the medicine largely diluted with water, preferably alkaline water, at least one-half gobletful, and if the dose be large, a gobletful. 2. Cutaneous eruptions, especially acne. In some persons the susceptibility to serious cutaneous eruptions is so great as to thwart this method of treatment altogether, but usually it need not interfere with the treatment. To some extent this trouble can be kept under control by arsenic. 3. A blunted condition of the will and intellect is usually more or less marked. If this increases to a great degree, it may be necessary to temporarily diminish the dose, though there often appears to be an adjustment, and the symptoms subside somewhat without reduction of the dose. Often, after the fits have been brought under control, the patient's disposition changes; there is great irritability, etc. But in this case, too, an adjustment seems to take place between the system and the medicine, and the unpleasant manifestations disappear without changing the dose. 4. The bromides sometimes cause impairment of nutrition, so that in badly nourished individuals it must be used cautiously. The use of cod-liver oil, iron, or other tonics, and especially an abundance of nutritious food, may help us over this difficulty. The same tonic course is usually indicated in cases of epilepsy. A weak heart, or valvular disease, also demands caution in the use of the bromides. Digitalis is, in such cases, a valuable adjuvant.

—Zenner, *Journal of Nervous and Mental Disease.*

Hydronaphthol as an Antiseptic. — Hydronaphthol is one of the naphthol series, being a derivative of β-naphthol, and occurs as a whitish powder of fine, flaky crystals. The preparation I used was that of Messrs. Seabury and Johnston, sold by the chemists as hydronaphthol powder. The powder is freely soluble in alcohol, but is, unfortunately, very insoluble in water. It is not wholly soluble in 2,000 parts of cold water. In hot water (above 70° C.) it is much more soluble, but after cooling there is a considerable deposit.

Preliminary experiments conducted in the manner afterwards detailed with a saturated solution, and also with a boiled and subsequently filtered solution (that is, strongest solutions which could be got in water) proved that each, after one hour's exposure, failed to kill staphylococcus pyogenes aureus, though the boiled solution was effective after twenty-four hours. It, therefore, became necessary to obtain a solution stronger than could be obtained in water alone, and to this I attributed the clinical failure of the antiseptic.

I then tried mixing a spirituous solution with water, but the hydronaphtol was at once thrown out when the solution was stronger than 1 to 20 of spirit, while the precipitation occurred more slowly when a solution of 1 to 40 was mixed with water. Glycerine, however, if added to the spirituous solution in excess, prevented this precipitation in water, and I therefore made up a standard solution, thus

Hydronaphthol.....	1 part	1 part,
Rectified spirit.....	10 parts	
Glycerine.....	9 parts,	

making a brown solution of 1 to 100; and with this I was able to get a clear and permanent solution of any strength.

My experiments were designed to test, first, the germicidal, and secondly, the inhibitory power of hydronaphthol. I used a single organism in all the experiments — staphylococcus pyogenes aureus — which I selected both for its ready recognition by its distinctive color and its frequent occurrence. As a preliminary, I demonstrated by plate cultivations that the staphylococcus existed in unimpared vitality in boiled water four days after inoculation.

—Bryce, *British Med. Jour.*

THE *Medical World* contains many suggestions from practitioners, besides useful hints, some old, some original. As a specimen we give the following, taken from the December number:

FINK advocates the carbonate of ammonia highly in pneumonia, especially in bad cases.

OVERLOCK reports a case of threatened abortion in a woman who had already aborted five times. There was some show of blood already She was given drachm doses of viburnum prunifolium (fluid extract?) every hour for four doses; then every three hours, and kept in bed for some days after all symptoms had left her. Three times in the same pregnancy the symptoms reappeared, and were controlled in the same manner. The doctor was rewarded for this plucky fight by delivering the woman at term of a healthy child.

DALIGNY recommends for pruritus hiemalis:

℞.—Acidi salicylici..... ℥j
Pulv. sulphuris..... ℥ij
Vaselinæ..... ℥ij
M.—S. Use night and morning, after ablution.

LUTTERLOH recommends as an escharotic in cancer, lupus, etc.:

℞.—Sanguinariæ..... part. j
Galangal, pulv..... " iij
Zinci chloridi.....q. s.

Mix the powders, and add enough zinc to make a thick paste. Apply ⅛ inch thick to the tumor, and ⅛ inch over healthy skin, and repeat each morning until desired result is obtained.

APPLEWHITE recommends the following posture for epistaxis:

The patient is placed on a table, face upwards, head dropping down to right angle with the body, supported on a stool, and plugging the anterior nares.

FULLER failed to reduce fever in typhoid by the use of antifebrine, until he added quinine.

HORTON reports a primipara at the age of forty-eight years and six months.

LINDSEY reports delivering a woman at the age of fifty-nine years, eleven months and one day; and of triplets at that.

MCKINNON reports a case of strangulated hernia in which he drew off the gas by using a hypodermic syringe; when the bowel returned spontaneously.

THE PREVERTEBRAL HÆMOLYMPH GLANDS.—Dr. W. F. Robertson, of the Royal Infirmary, Edinburgh, in an interesting article in the *Lancet* on this subject, says:

Histology.—It will be most convenient, in describing the microscopic structure of these glands, to take that of the sheep as the type, and afterwards to point out how those of man and the bullock differ from it. A hæmolymph gland may be regarded as consisting of three portions: (1) A capsule immediately within which there lies (2) a large, irregular sinus distended with blood, which extends, as a rule, right around the gland; and (3) a central or lymphoid portion, into which the peripheral blood sinus sends processes. The capsule is thick in relation to the size of the organ. It is formed of dense fibrous tissue, with many non-striped muscular fibers, chiefly in the deeper layers, and a few yellow elastic fibers. The fat in which the organ is imbedded is immediately external to the capsule. The peripheral sinus is in its average width about one-twelfth of the diameter of the gland. It is intersected by trabeculæ of similar structure to the capsule, which freely anastomose and form a sparse network extending from the capsule to the central or lymphoid part. The meshes of this network are filled with red blood-corpuscles, and other cells similar to those found in the central part, and evidently derived from it. The central lymphoid portion is broken up into irregular segments by prolongation of the peripheral blood sinus, which vary greatly in size. The largest of them are crossed by trabeculæ similar to those of the peripheral sinus. They give origin to smaller, finger-like processes, which still further break up the lymphoid part. All these sinuses are lined by a delicate endothelium. The lymphoid part consists of a framework of long, spindle shaped cells, some of which are non-striped muscular fibers. A few elastic fibers are also present. The spaces in the framework are closely packed with cells of various kinds. Many of them appear to be merely lymphoid cells similar to those forming the follicles of a lymphatic gland. They are found everywhere; but aggregations of them, varying in number from three to six in each section, occur, especially near the margin, forming small, rounded masses closely resembling the splenic lymph follicles, but differing from them in having no arterial relations. Another form of cell which is almost equally abundant, is one differing only slightly from the preceding. It is rather larger, its nucleus tends to be oval instead of circular, and the surrounding protoplasm is more abundant. It differs most markedly from a lymphoid cell in its staining reaction, and may thus be readily distinguished from it. In specimens stained with logwood its nucleus, instead of staining very deeply, as occurs in the case of the lymphoid cell, stains very lightly, although darkly stained nucleoli are always present in it. These cells occur throughout the lymphoid portion, but special masses of them are present in the center of the lymph-follicles. A third form of cell is one which occurs in considerable numbers, and is larger than either of the preceding. It exactly resembles an uninucleated white blood-corpuscle, consisting of a large, deeply staining, often reniform nucleus, with well-defined perinuclear protoplasm. The nucleus of this cell undergoes repeated division, so that there is ultimately formed a multinucleated cell. These multinucleated cells are most numerous near the blood sinuses. In some glands they are not very abundant, but in other they are so numerous as to constitute the most conspicuous feature in the field of the microscope. As the nuclei multiply, the cell itself increases in size until those containing several nuclei have nearly three times the diameter of a lymph corpuscle. They evidently enter the blood sinuses, in which they appear as multinucleated white blood-corpuscles. The number of nuclei in them varies within considerable limits. Many have seven or eight, and some have been seen with even more. In specimens stained with logwood and eosine, it may be noticed that the nuclei, as they increase in number, gradually lose their affinity for logwood, and become tinted with eosine, and from their size and contour strongly suggest the possibility that they become red blood corpuscles. A fourth form of cell is one of large size, which is probably developed from the second variety described above, as cells forming an intermediate series may readily be made out. It is from two to three times the size of a multinucleated cell, and is often somewhat triangular in shape. It has a large nucleus, which stains lightly with logwood, and a small, deeply-staining nucleolus. In some, however, no nucleolus can be seen, and in others the nucleus has also disappeared, so that there

is left only a large, usually rounded, protoplasmic mass which stains with eosine. A fifth form of cell is one of considerable interest, but it is not always very numerous. It is about the size of a multinucleated cell, and usually oval in shape. It has a large nucleus, faintly stained with logwood (in specimens stained with logwood and eosine), and a small amount of surrounding protoplasm.

Medical News and Miscellany.

SCARLATINA has appeared at Lumberton, near Mount Holly, N. J.

HEHIR reports a case of rectal ulcer and stricture in a child under two years of age.

A NEW YORK dentist bemoans his hard fate, as he can only get $100 for a day's labor of five hours.

THE yield from the Indian plantations last year amounted to 1,833 lbs. of quinine, and 6,578 lbs. of febrifuge. This is a decrease from the previous year.

HEHIR reports a case of dropsy of the legs, and albuminuria without tube casts, that appeared to be due to tight lacing, and disappeared when the corsets were laid aside.

A COLORED barber is said to have been asked to kiss a baby, the idiot who was the child's mother believing that this would relieve the babe from the pangs of teething.

THE *Bacteriological World* is announced to appear about January 1, as an illustrated monthly, at $3 per annum, edited by Dr. Paul Paquin, of the State University, Columbia, Mo.

DR. WICKERSHAM is having trouble with the postmaster of the town of Almira, in Jefferson. That official has his office in his residence, and, as a member of his family is ill with scarlet fever, people are unable to get their mail.

DRS. E. H. COOVER, H. Hamilton, and T. J. Dunott have been appointed by the Dauphin County Medical Society as a committee to visit the Philadelphia hospitals and inspect the method of employing Koch's remedy for tuberculosis.

THE Homœopathic Hospital, of Camden, has closed its wards. Reasons given: The doctors of that ilk would not attend the patients without pay. The dispensary, which receives $900 a year from the city, is still open. Out of this sum the physicians are paid.

THE Open Court Publishing Co., of Chicago, will publish immediately, in two handsomely-bound and printed volumes, a new, authorized translation of Gustav Freytag's well-known novel, "The Lost Manuscript." This is regarded by critics as the most charming of the famous German writer's works.

SANITAS has made for itself a good record at the great horse show at Madison Square. Notwithstanding the fact that hundreds of horses were stabled there the entire week, everything was pure, pleasant, and odorless.

At the Smithfield and Islington live stock shows, in England, so perfect was the disinfection, even in the piggery, that the Prince of Wales, and other royal visitors, specially remarked upon it. Thus the high success which Sanitas has met in America is but a repetition of its achievements in England.

"AND now, doctor, you will explain to the jury what a compound fracture is," said the lawyer in a suit in Chicago, last week. "It means where an arm and a leg are broken at once," replied the M.D., who is striving to build up a great reputation as a surgeon.

DR. DIXON is reported to have withdrawn all claim to priority in the discovery of Koch's new remedy. Until we know of what this remedy consists, it is not possible to make or deny priority claims. What Dr. Dixon has done, and has published before any one else, is the demonstration of the protective power of sterilized cultures of the tubercle bacillus, in the case of certain animals. The relation of this discovery to Koch's cannot be estimated until the latter has informed us as to the true nature of his remedy.

MASSACHUSETTS MEDICAL SOCIETY (Suffolk District).—The section for clinical medicine, pathology, and hygiene will meet at 19 Boylston place, on Wednesday, December 17, at 7.45 o'clock. Paper: Dr. W. N. Bullard: The Care of Chronic Pauper Epileptics. Dr. L. M. Baker, of Baldwinville; Dr. Edward Cowles, Superintendent McLean Asylum, Somerville; Dr. Walter E. Fernald, Superintendent Massachusetts School for the Feeble-minded; Dr. Everett Flood, Superintendent Hospital Cottages for Children, Baldwinville, Mass.; Dr. Geo. F. Jelly, Boston; Dr. A. R. Moulton, Massachusetts State Board of Health, Lunacy and Charity; Dr. Geo. H. M. Rowe, Superintendent City Hospital, Boston, and others, are expected to take part in the discussion. E. G. Cutler, M.D., Chairman; Albert N. Blodgett, Secretary, 138 Boylston street.

PATENTS, ETC., on medical subjects, issued December 2, 1890:

Dose-measuring bottle	H. S. Herrick	San Francisco, Cal.
Dental-pluggers	J. L. Mewborn	Memphis, Tenn.
Disinfecting apparatus	F. J. Mitchell	New York, N. Y.
Red dye	C. Dreyfus	Clayton, England.
Mixing and tempering linseed meal	O. R. Nelson	Chicago, Ill.
Temperature regulator for liquids	F. V. Bulckens	Oregon, Ill.

TRADE-MARKS.

Liquid remedy for diseases of the eye. (The pictorial representation of an eye, combined with a protractor instrument, having radii converging to, and terminating in the pupil of the eye	E. H. Burnham	Boston, Mass.
Remedies for diseases of the feet. (The word "Creole.")	J. F. Murphy	New Orleans, La.
Remedy for certain named diseases. (The letters "H V.C.")	W. R. Hayden	Bedford Sp'gs, Mass.
Tonic for debility in females. (The words "Balm of Gilead," and the pictorial representation of a resurrection flower, known also as the "resurrection rose of Jericho.")	Balm of Gilead Co.	New York, N. Y.
Stomach bitters. (The pictorial representation of an alchemist seated upon a pile of books, and holding within one hand an herb, and with the other hand holding upon his knee an open book; and having at one side of him a still, and at his feet, in front of him, a pair of scales; the pictorial representation being partially surrounded by a series of medals	J. Thielen	Oshkosh, Wis.

LABELS.

"Lameraux's Antiseptic."	J. Lameraux	Montgomery, Ala.
"Dr. Stephen's Buckeye Cough Cure."	A. F. Stephens	St. Joseph, Mo.
"Curtis' Spruce Balsam." (For Medicine.)	G. S. Curtis	Peabody, Mass.
"Crane's Infallible Rheumatic Remedy."	O. Crane	Brooklyn, N. Y.

—CHARLES J. GOOCH, *Patent Attorney.*
LOCK BOX 76, WASHINGTON, D. C.

Army, Navy and Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from November 25, 1890, to December 8, 1890.

By direction of the Secretary of War, Captain Charles B. Ewing, Assistant-Surgeon, in addition to his present duties, is assigned to duty as examiner of recruits at St. Louis, Missouri. Par. 7, S. O. 275, Headquarters of the Army, A. G. O., November 24, 1890.

By direction of the Secretary of War, First Lieutenant Eugene L. Swift, Assistant-Surgeon, is relieved from further duty and station, at Fort McDowell, Arizona Territory, and assigned to Fort Thomas, Arizona Territory, where he is now on temporary duty. Par. 16, S. O. 282, A. G. O., Washington, December 3, 1890.

By direction of the Secretary of War, Captain James E. Pilches, Assistant-Surgeon, now on leave of absence, will report in person to the commanding general, Division of the Atlantic, for temporary duty at Fort Columbus, New York Harbor, during the absence, on leave, of Captain William E. Hopkins, Assistant-Surgeon. Par. 3, S. O. 278, A. G. O., Washington, D. C., November 28, 1890.

By direction of the Secretary of War, leave of absence for six months is granted Captain William E. Hopkins, Assistant-Surgeon. Par 2, S. O. 278, A. G. O., Washington, D. C., November 28, 1890.

Changes in the Medical Corps of the U. S. Navy for the week ending December 6, 1890.

ATLEE, L. W., Assistant-Surgeon. Ordered to examination preliminary to promotion.

MARTIN, H. M., Surgeon. Placed on Retired List, December 4, 1890.

ALFRED, A. R., Assistant-Surgeon. Ordered to the Naval Hospital, Norfolk, Va.

WHITFIELD, J. M., Assistant-Surgeon. From Hospital, Norfolk, and to the U. S. S. "Chicago."

MCCORMICK, A. M. D., Assistant-Surgeon. Detached from U. S. S. "Chicago," and await orders.

KEENEY, J. F., Assistant-Surgeon. Ordered to the U. S. S. "Minnesota."

HARRIS, H. N. T., Assistant-Surgeon. Detached from the U. S. S. "Minnesota," and await orders.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service for the two weeks ending December 6, 1890.

FESSENDEN, C. S. D., Surgeon. Leave of absence extended seven days. December 4, 1890.

BAITHACHE, P. H., Surgeon. Granted leave of absence for twenty days. November 28, 1890.

HUTTON, W. H. H., Surgeon. To proceed to Solomon's Island, Md., on special duty. November 29, 1890.

SAWTELLE, H. W., Surgeon. Granted leave of absence for ten days. December 2, 1890.

PECKHAM, C. T., Passed Assistant-Surgeon. Granted leave of absence for ten days. December 1, 1890.

HUSSEY, S. H., Assistant-Surgeon. When relieved to proceed to New Orleans, La., for duty. November 24, 1890.

GROENEVELT, J. F., Assistant-Surgeon. When relieved to rejoin station. November 24, 1890.

COFER, L. E., Assistant-Surgeon. Ordered to temporary duty at Boston, Mass. November 24, 1890.

TO CONTRIBUTORS AND CORRSEPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

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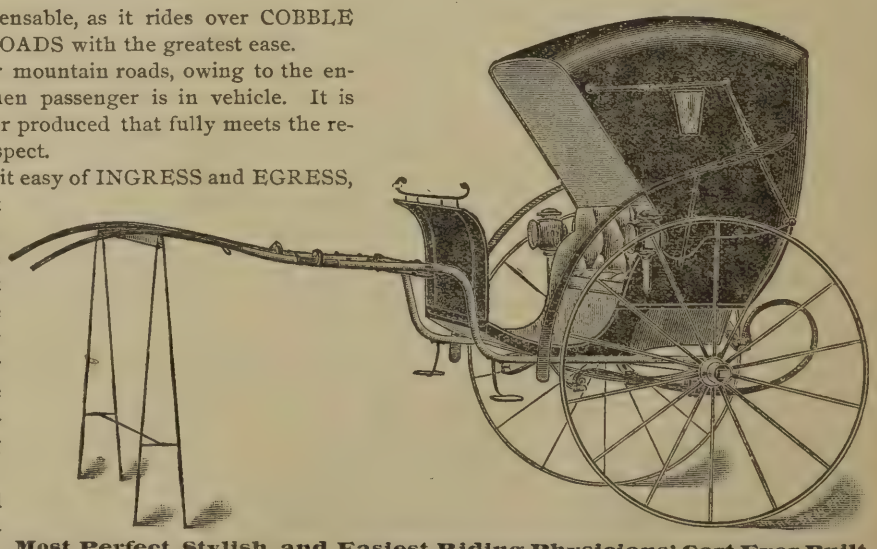

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PAGE

ORIGINAL ARTICLES.

PYÆMIA AND THROMBOSIS OF INTERNAL JUGULAR VEIN FROM AN OLD OTITIS MEDIA.—LIGATION OF INTERNAL JUGULAR VEIN.—TREPHINING OF MASTOID.—OPENING OF LATERAL SINUS.—DEATH. By W. W. Keen, M.D. - - - - - - - - - - - 559

DOUBLE HARE LIP AND CLEFT PALATE.—PLASTIC OF ALVEOLUS. By De Forrest Willard, M.D. - - - - - - - - - - - 561

SOME OBSTETRICAL DON'TS. By T. Ridgway Barker, M.D. - - - - - - - - - 561

THE TREATMENT OF PUERPERAL MASTITIS. By Charles Meigs Wilson, M.D. - - 563

DOUBLE PNEUMONIA COMPLICATED WITH ABORTION. By William F. Waugh, M.D. 564

THE RESORPTION OF IMMATURE CATARACT BY MANIPULATION CONJOINED WITH INSTILLATION. By L. Webster Fox, M.D. - 565

A CASE OF CHOREA DUE TO THE PRESENCE OF ASCARIS LUMBRICOIDS. By A. E. Roussel, M.D. - - - - - - - - - - - - - 566

OPERATION ON A GROWTH IN DOUGLAS' CUL DE SAC. By C. C. Moore, M.D. - - 566

HIGHER PRELIMINARY MEDICAL EDUCATION. THE INFLUENCE OF THE GERMAN UNIVERSITIES UPON OUR PROFESSION. By Henry E. Dwight - - - - - - - - 566

PAGE

THE WEST INDIES AS A SANITARIUM. By William F. Hutchinson, M.D. - - - - - 569

THE POLYCLINIC.

MEDICO-CHIRURGICAL HOSPITAL NOTES:
Chromic Acid Catgut Ligatures. *Keen* - 573
Eczema Squamosum. *Stelwagon* - - - 573
Irritability of the Vocal Cords from Overuse. *Solis-Cohen* - - - - - - - - 573
To Keep Instruments from Corroding and Rusting. *Keen* - - - - - - - - - 573
For Whooping-cough. *Waugh* - - - - 573
Case Simulating Bright's Disease. *Waugh* 573
Aristol for Burns. *Waugh* - - - - - - 573
Ergot in Catarrhal Pneumonia. *Waugh* - 573
Transverse Myelitis. *Walling* - - - - 573
Supra-orbital Neuralgia. *Walling* - - - 573
POLYCLINIC HOSPITAL:
The Diarrhœa of Constipation. *Solis-Cohen* - - - - - - - - - - - - - 574

EDITORIALS.

CHRISTMAS GREETINGS - - - - - - - - - 575
MAGNETIC HEALING - - - - - - - - - - 575

ANNOTATIONS.

Infant Mortality - - - - - - - - - - - 576
The Medical Instruction of To morrow - - 577

PAGE

Massage - - - - - - - - - - - - - - - 577
Treatment of Typhoic Fever by Hydrotherapy - - - - - - - - - - - - - 577
Perfected Obstetrics - - - - - - - - - 577

LETTERS TO THE EDITOR.

A Case of Diagnosis. *Waln* - - - - - - 578

BOOK NOTICES.

The Physician's Visiting List for 1891 - - - 578
The Medical Bulletin Visiting List, or Physician's Call Record - - - - - - - - - 578

NEW INSTRUMENTS.

Koch's Hypodermic Syringe - - - - - - - 579

THE MEDICAL DIGEST.

FRENCH NOTES. *Roussel* - - - - - - - - 579
Examination of the Lungs - - - - - - - 579
Latent Cancer of the Stomach. *Siredey* - 579
Mortality from Hysterectomy. *Terrier* - 579
Tubercular Peritonitis and Its Cure by Laparotomy. *König* - - - - - - - - - 579
Treatment of Diphtheria by Iodide of Potassium. *Zinenko* - - - - - - - - - - 579

MEDICAL NEWS AND MISCELLANY, 580

NOTES AND ITEMS - - - - - - iv, xiv

Original Articles.

PYÆMIA AND THROMBOSIS OF INTERNAL JUGULAR VEIN FROM AN OLD OTITIS MEDIA.—LIGATION OF INTERNAL JUGULAR VEIN.—TREPHINING OF MASTOID.—OPENING OF LATERAL SINUS.—DEATH.

BY W. W. KEEN, M.D.,
Professor Principles of Surgery, Jefferson Medical College, Philadelphia.

C. S., aged thirty-one years, letter carrier, married. I first saw him November 16, 1890, at the request of Dr. Jas. F. Berlet.

For the last seven or eight years he has had a slight discharge from the right ear, apparently from cold. Has never had measles or scarlet fever. Has been slightly deaf in right ear.

Annoyed by the discharge, five months ago he consulted an alleged ear specialist, who continued to treat him until four weeks ago, when he made some application to his ears that caused him such pain that in walking to the doctor's office he attracted attention on the street, as he felt and acted as if almost crazy. This was followed by severe headaches, especially occipital. On November 5, 1890, he had a severe chill, followed by fever, and other chills at irregular intervals. Two of them occurred yesterday (November 15) and one this morning, followed by drenching sweats. Two days ago he became slightly jaundiced. Yesterday he had a slight hæmoptysis. Has also great pain in right chest.

Dr. Berlet was called to see him yesterday, and immediately called me in consultation, after making a diagnosis of pyæmia following otitis media. His temperature, taken by Dr. Berlet yesterday morning, was 105.5°, and in the evening, 103°; this morning, 102°, with his pulse pretty steadily at 125. There had also developed a great deal of pain in the right side, from pleurisy, with effusion.

Present Condition: November 16, 1890.—The patient has a very fetid discharge from the right ear, which shows a perforation of the membrane. The mastoid is but slightly swollen or œdematous; is moderately painful upon pressure, with a little pain just above and behind it, but no pain over the course of the lateral sinus between this point and the inion. Over the mastoid process the neck was extremely tender, though but little swollen. The jugular vein could not be felt. He has difficulty in swallowing, and is somewhat hoarse. He is a little jaundiced, and liver rather tender. There is some dullness on the whole of the right side, from slight pleuritic effusion. No headache at present. Beginning choked discs.

Concurring in Dr. Berlet's diagnosis and desperate prognosis, I decided to operate immediately, as it gave him his only, though a very remote, chance for life.

First I trephined the mastoid and evacuated a considerable amount of cheesy pus, which was very fetid. I then chiseled away the bone backward and upward, so as to expose the lateral sinus. Almost immediately on beginning the chiseling I cut the mastoid vein, which bled very freely, but was readily controlled by plugging with iodoform gauze. I exposed, in this way, easily three-fourths of an inch of

the sinus, which looked dirty yellow, with a slight tinge of green and brown at different points. It felt soft to the probe, but was detached from the bone to such an extent that the probe could be passed easily down and forward for over an inch, and evacuated a little offensive pus. I then exposed the jugular vein in the neck. In doing so I found the tissues quite firmly united to each other by inflammatory adhesions, but after some little difficulty exposed the vein, which was thickened, and almost entirely collapsed. A ligature was then thrown around it, an inch and a half above the clavicle—as low as I dared to go. On cutting the vein above the ligature, very little blood oozed out, but fragments of an excessively fetid clot were evacuated from its interior. The odor was so offensive that it was noticed eight or ten feet away. The facial vein, where it entered the jugular, was also thrombosed. The part of the vein from the ligature up the facial was then removed, and the gaping mouth of the vein above sewed to the skin by two stitches.

Next I opened the lateral sinus. The free flow of blood from the mastoid vein had prepared me for abundant hemorrhage, though the discoloration of the wall of the sinus had led me to think that the softened condition might be due to a softened clot. The moment the incision was made, a violent gush of blood showed that there was no thrombus. In an instant I plugged it firmly with iodoform gauze, so that the amount of blood lost was probably not over an ounce and a half.

The wound in the neck was now closed in the ordinary manner, with drainage by horse-hair. The patient was put to bed in a fair condition after so grave a series of operations. His wife had been told, when I saw him, that his chances for life were almost *nil*, and that the only chance lay in operation; and that I was willing to undertake it if she desired it. During the operation his pulse became thready, and $\frac{1}{20}$ of a grain of strychnine was given him hypodermically. This stimulated him, and his pulse, after the operation, was 140, though rather feeble. His color was very good.

He was directed to have two ounces of milk, and one ounce of brandy, every two hours, and as much champagne as he could take.

November 17, 1890. For the first twenty four hours he did very well. His temperature did not rise above 102°, and his general condition was good. He had, however, a second attack of hemoptysis this morning, when he expectorated about an ounce of blood. At 3 P.M., he was suddenly seized with dyspnœa, evidently due to extension of the clot in the jugular into the lungs, or else to the embolus which was detached and passed into the pulmonary vessels. In spite of the most vigorous efforts of the Resident, he died in an hour. No post-mortem could be obtained.

Dr. Barr kindly made a microscopic examination of the vein and clot, and reports as follows:

Jugular vein:—Septic inflammation, infiltration around the cells, much necrotic tissue, micrococci and bacilli present.

Thrombus:—Many pus cells, some red blood cells, many micrococci.

Remarks.—The diagnosis in this case by the doctor who first saw him was: First, chills and fever; and later, when the jaundice set in, disease at the liver.

As soon as Dr. Berlet saw him, it was clear to him, as it ought to have been to any one else, that the case was one of pyæmia. The prior diagnoses are admirable illustrations of the symptoms masking the diagnosis, or, to use a French proverb, the doctor "could not see the forest for the trees." Our prognosis in the case was that of certain death if no operation were performed; and almost certain death even if one were performed. But remembering the cases to be alluded to in a moment, it seemed to us worth while to take the desperate chance.

As to treatment, such cases have, until very recently, gone without any treatment, except the expectant one, which led always to death. Their treatment is of great importance, especially as such cases are not of very infrequent occurrence, as is evident from the fact that Mr. Ballance estimates that, independent of other ear diseases, such pyæmia causes nearly one death a week in London alone.

In 1886, Mr. Horsley (Trans. Clin. Soc. of London, Vol. XIX), I believe, first suggested ligation of the internal jugular in cases of pyæmic thrombosis of the lateral sinus.

In 1889, Mr. Lane (Trans. Clin. Soc. of London, Vol. XXII) reported the first case of purulent thrombosis of the sinus, so operated upon. The patient was a boy of ten years of age, and made a rapid recovery after the ligation of the internal jugular vein.

In the *Lancet* for May 17 and 24, 1890, Mr. Chas. A. Ballance reports four cases, in which operation was followed in two cases by recovery, making three cases of recovery out of five.

The object of the operation is, of course, by ligation of the vein to prevent the extension of the septic clot further toward the heart, or if the clot itself does not extend, to prevent an embolus from it which will do equal damage in the lungs, and, at all events, to prevent further entrance into the circulation of the products of the infective clot. Even in pyæmia without thrombosis of the sinus, if the source of the pyæmic infection is the temporal bone, Mr. Ballance wisely advises ligation of the jugular, and packing of the lateral sinus, for the same reason, namely, to prevent further absorption of the poison.

In the present case the sinus was not trombosed, though to the eye its color indicated such changes as led me to think that it was the seat of septic processes. The treatment, however, was clearly indicated—to prevent the pouring into the circulation of the further septic products of the clot in the jugular vein. Unfortunately, before we had the opportunity to operate, the clot had already extended doubtless to the innominate vein, for I applied the ligature only an inch and a half above the clavicle, and the clot even at that point was so foul that the odor was perceptible eight or ten feet away as soon as the vein was opened. Not being able, therefore, to get between the clot and the heart, the case was regarded by us as hopeless the moment we found such extensive thrombosis. The tissues of the neck were all solidified by the septic inflammation around the vein, so that they had to be dissected apart in searching for the vein, instead of simply loosening them from each other as would be the case in an ordinary neck. This condensation, as well as the partial collapse of the vein, made it impossible to detect the vein itself as a thrombotic cord.

I prefer the method I adopted of first opening the mastoid antrum, and then by gouge and chisel opening the canal for the lateral sinus, rather than trephining.

I think the danger of wounding the sinus is lessened, as the bone is of very unequal thickness at the groove for the sinus, and, besides, it is usually more or less loosened from the bone, as in this case, by a layer of foul pus.

The most important point of all, however, is that

physicians who see such cases early in their history should be impressed with the fact that if a chronic otorrhœa is followed by headache, pain, chills, oscillations of temperature to the extremes, with repeated chills and local œdema, tenderness over the mastoid, over the internal jugular, and over the course of the lateral sinus, and possibly, as in this case, the beginning of optic neuritis, a surgeon should be called as quickly as possible, the mastoid opened, the vein ligated, and the sinus plugged.

As to operative procedure, the plugging of the sinus does not involve any great loss of blood, even if there be no clot. Obstruction of the entire sinus on one side does not involve, it should be remembered, the obstruction of both lateral sinuses, the right being usually continuous with the superior longitudinal sinus, and the left with the sinus rectus (Gray), and with slight communication between them, and sometimes none.

All the papers alluded to are well worth reading by any one who desires to make himself familiar either with the clinical study or the operative procedure.

DOUBLE HARE LIP AND CLEFT PALATE.—PLASTIC OF ALVEOLUS.

By DE FORREST WILLARD, M.D.,
Surgeon Presbyterian Hospital; Clinical Professor Orthopædics, University of Pennsylvania, etc.

C. W., aged ten months. Cleft on the right side entirely through the lip, alveolus, hard and soft palate, extending into and opening the nasal cavity into the mouth. The cleft of the soft palate is half an inch in width. The turbinated bones of the nasal fossa are exposed. The inter-maxillary bones are pushed forward and tilted, so that the extremity of the left alveolar section projects in front of, and overlaps the shorter right alveolus, so that when the jaws are closed the lower maxilla falls fully half an inch behind the upper one, thus preventing any possibility of future mastication. The upper jaw also projects markedly in front of the lower alveolar curve. The skin and soft tissues covering the front of this central inter-maxillary region, are pushed forward, so that they are nearly in a line with the tip of the nose, and there is no nasal projection at that point. The right ala is flat, from its want of bony support. Although the cleft of the lip is double, the alveolus on the left side is not divided. The width of the separation of the alveolar portions on the right side is one-eighth of an inch, and the entire projection, anteriorly, is one-half of an inch.

Operation—As mastication would be impossible in the present condition, the super-maxillary was cut through its alveolar portion by a chisel, opposite and above the first molar teeth on the right side, care being taken to injure the teeth germs as little as possible. The bone was then fractured and pushed back by strong force, applied by the cushion of the hand, until it was brought into line of the other alveolus. As a tendency, however, to return to its former position was still apparent, the fragments were drilled, and wire sutures were carried through each section, and the wires were then shotted, the edges of the alveolus having been freshly pared and freshened before approximation. After the replacement of the soft parts, a long and strong pin was thrust through the lip and through the two fragments, uniting all and holding the jaws firmly in place, while it also acted as a splint for the soft parts. Both the clefts in the lip were then thoroughly pared, commencing at the apex of the triangular spaces, and cutting downward until the red border of the lip was reached, when the partially-severed flesh was permitted to hang with its base still attached to the lip, so as to avoid the loss of any tissue whatever. These four flaps were everted and held out of the clefts, while pins were inserted, so that these projecting flaps might assist in retaining the fullness of the lip, and preventing the deep fissure which so frequently mars the appearance of the border in any operation in which simple paring has been done, and the pared tissue is sacrificed. There will be at first, as is always the case, a redundancy of material; but as cicatrization and contraction occur, shrinkage takes place, and in the course of a year it is not probable that any redundancy will exist. Even should there be any excess, simple snipping with the scissors will suffice to remove it.

The two clefts were united separately with black silk sutures, without the use of small pins. The only pin used was the long one above mentioned. Long strips of adhesive plaster, extending from the neck upon either side diagonally across the lip to the front of the ear on the opposite side, were then applied. The special advantage of these strips being to control muscular action and to keep the parts at rest. When properly applied, these strips are an important part of the dressing, as they splint the whole lower part of the face, and prevent traction by the muscles upon the fresh edges. The long pin, as it had no suture thrown about it, exerted no compression upon the tissue, and it was allowed to remain for five days, to assist in the fixation of the bone fragments. Union of the soft parts was then perfect, and all the stitches were removed, reliance being placed upon the adhesive plaster.

During re-dressing, an assistant's hands should always maintain accurately the position of the flaps, prevent muscular action from the crying of the child, and thus separating the freshly-united tissue.

On the tenth day the small redundant flaps, which had been saved, and which had been stitched with silk, were re-pared at the points where they had failed to unite, after which firm union took place and a small projection marked the line of the cleft instead of a depression, which is usually the case.

The wires were removed on the fourteenth day, and perfect union was found to have been secured between the two portions of the alveolus.

The cleft in the palate, of course, still remains, and will require a subsequent operation, on account of the great width of the opening; or, an obturator may be used.

SOME OBSTETRICAL DON'TS.

By T. RIDGWAY BARKER, M.D.,
Demonstrator of Obstetrics and Chief of the Obstetrical Department in the Medico-Chirurgical College of Philadelphia.

DON'T declare a woman pregnant until you hear the fœtal heart-sounds.

Don't fail to distinguish maternal from fœtal heart-sounds.

Don't forget important additional signs—ballottement, progressive enlargement of uterus and abdomen, etc.

Don't consider a woman necessarily pregnant because there has been cessation of menstruation for several months.

Don't certify that she is not pregnant because she is not married and denies sexual intercourse.

Don't diagnosticate a woman pregnant because enlargement of the mammæ occurs during the first few months following marriage.

Don't accept cessation of menstruation and abdominal enlargement as conclusive signs of conception.

Don't think "morning sickness" and cervical softening pathognomic of pregnancy.

Don't assert that a female is not pregnant because she has a flow of blood from the uterine cavity at her usual menstrual period: decidua vera and reflexa are not in apposition before the third month.

Don't fail to employ the pelvimeter in cases of pregnancy where there are reasons for supposing that there exists an abnormal narrowness of the external pelvic diameters.

Don't consider "morning sickness" uncontrollable and irremediable; look to the diet and forbid all those articles save agents promoting digestion and assimilation.

Don't overlook abdominal distention and increased weight as a possible cause of irritable heart and labored breathing.

Don't allow vesicle irritability and tenesmus to keep your patient awake at night, nor to occasion inflammation and excoriation of the external genitalia.

Don't take for granted that her bowels are regular, but see that your orders in this respect are carried out.

Don't restrict the diet during gestation, it should be of a wholesome and nutritious character—allowances must be made for "cravings."

Don't confine the patient to the house, but encourage the taking of exercise and fresh air.

Don't disregard the state of the nervous system; recollect that it is exalted.

Don't ever consider a case of labor too trivial to require any care and attention.

Don't omit an examination of the mammæ and nipples.

Don't fail to diagnosticate between elevations of the skin about the nipples due to sudden chilling of the areolæ and true tubercles of Montgomery, which are uninfluenced by change of temperature.

Don't delay the employment of remedial agents for the relief of pruritus vulvæ, as it is very distressing.

Don't allow the pregnant female, after the third month, to take any violent exercise, nor to go up and down long flights of stairs.

Don't fail to interdict washing done in cold water, as it is liable to lead to congestion of internal organs of a serious character.

Don't permit her to lift heavy bodies, as such strains endanger the integrity of the membranes and placenta, thus jeopardizing the life of the fœtus.

Don't consent to her taking drives over rough roads, nor in cable cars.

Don't overlook the dangers incident to long railway journeys during the latter months—especially if the railroad has a number of steep grades and sharp curves.

Don't underestimate the importance of ascertaining the source of hemorrhage during gestation; be on the alert for the occurrence of placenta previa.

Don't fail to insist upon rest in the recumbent position for multipara who have previously miscarried during the latter months of gestation.

Don't hesitate to give sedatives freely in cases of threatened abortion or miscarriage to control nervous excitement and allay muscular contraction.

Don't advise her to indulge in social pleasures of an exhaustive nature, nor let her be persecuted by unwelcome visitors.

Don't allow her to be subjected to shocks of electricity, nor loud noises of a terrifying character.

Don't let her witness scenes of an exciting nature, be they extremely tragic or melo-dramatic.

Don't neglect pointing out to her the advantages to be gained by discarding her corsets and other articles of clothing which constrict the movements of the chest and abdomen.

Don't fail to supply the osseous system with abundant material for its nutrition and growth.

Don't forget that the blood during the period of gestation is altered in character, containing a larger amount of water and fibrin, less albumen and red blood globules.

Don't forget mentioning to the primipara that she will most likely "feel life" in the fourth month, and prepare her mind for such an occurrence.

Don't neglect to explain the cause of the purple lines on her abdomen.

Don't omit warning her against wearing tight and insufficient clothing; corsets must be discarded.

Don't recommend very cold nor very hot baths.

Don't sanction the administration of anæsthetics, unless imperatively demanded, lest abortion follow from the violent muscular contractions induced during the stage of excitation.

Don't consent to any operation upon the uterus, vagina, rectum, or bladder which can be postponed until the termination of pregnancy without increasing the risk to the mother.

Don't administer drastic cathartics nor agents likely to unduly excite the muscular walls of the intestinal canal, lest abortion be induced.

Don't insist upon frequent digital vaginal examinations.

Don't disturb mucus in cervical canal.

Don't pass anything, under any pretext, into the cervical canal, in even suspicious cases.

Don't introduce a speculum or tampon unless circumstances demand.

Don't allow sexual intercourse after the third month.

Don't fail to examine urine frequently for albumen and sugar.

Don't think that every woman who is pregnant, and has albuminous urine, must therefore have puerperal aclampsia.

Don't mistake abdominal and uterine intermittent contractions for fœtal movements.

Don't fail to appreciate the significance of "lightening" as indicative of the approach of labor.

Don't mistake the lochia for leucorrhœal discharge.

Don't fail to remove all fœcal accumulations from the rectum before the onset of labor.

Don't disregard the state of the bladder—see that its contents are evacuated.

Don't endeavor, by friction or other means, to hasten delivery in cases pursuing a natural course.

Don't attempt dilatation of the os by mechanical means, unless nature fails or demands assistance.

Don't press upon fundus of uterus during the intervals between pains.

Don't be too anxious to bring about rupture of the membranes.

Don't forget that the worst kind of midwifery is meddlesome midwifery.

Don't fail to follow the uterus as it contracts during the second and third stages, with the hand on the abdomen.

Don't deliver the head too abruptly from under the pubic arch; let the face sweep over the distended perineum.

Don't make traction on the neck, but wait for a pain.

Don't forget the head has to undergo external rotation in order that the shoulders may occupy the antero-posterior diameter of the outlet.

Don't fail to stimulate infantile respiration by friction and change of position.

Don't sever the cord until pulsations cease, except in cases associated with severe hemorrhage.

Don't fail to tie fœtal end before severing.

Don't disturb the placenta for twenty minutes.

Don't allow the uterus to become relaxed.

Don't fail to note the amount of blood lost, and its effect upon the parturient.

Don't omit examining after-birth, to see that every portion of it has been expelled.

Don't introduce the hand or fingers into the uterus unless occasion calls for it.

Don't allow the nurse to touch the person of the patient unless her hands have been rendered as aseptic as your own—a fact of which you are assured.

Don't think that because you order a thing done that therefore it is done, or will be done.

Don't fail to examine, after the third stage of labor, the vagina and perineum for possible lacerations.

Don't put off repairing either, but introduce stitches immediately.

Don't omit warning the nurse about getting soap in the infant's eyes.

Don't permit it to be scrubbed as if it were a kitchen table.

Don't depart without examining the outlets of the infant's excretory apparatus, to see that they are pervious.

Don't have the child removed from the mother's room—change of temperature is likely to occasion pulmonary trouble.

Don't forget the mother while looking after the child.

Don't put the child to the breast for several hours after delivery, that the mother may have some rest.

Don't allow visits from friends for twenty-four hours, or longer, if possible.

Don't take for granted, but see that the nurse does not allow a single soiled or damp article of apparel about the patient.

Don't imagine the risk of a change of clothing is as great as the risk of subsequent infection.

Don't employ ergot in every case after the third stage—wait indications.

Don't fail to order the patient a glass of milk, or other easily-digested fluid, within two hours after her confinement.

Don't permit her to have a drop of alcoholic spirits, unless it is to overcome dangerous symptoms of collapse.

Don't be alarmed by a chill during, or at the close of labor—simply a nervous disturbance.

Don't visit the patient without seeing that the lochia is natural and normal in appearance and amount, and possesses simply its characteristic odor.

Don't allow discharges to accumulate about the external genitalia nor within the vagina, lest they become a source of infection.

Don't postpone the use of intra-vaginal antiseptic injections an hour after the discharge gives forth a fetid odor.

Don't omit taking pulse and temperature; if both do not fall after several hours, explore parturient canal.

Don't overlook condition of bowels and bladder after delivery.

Don't fail to visit patient in from six to eight hours after her confinement.

Don't postpone an examination of the external genitalia of the infant—see that they are properly cleansed daily.

Don't have the child confined in a room flooded with sunlight.

Don't permit the child to be given anything but breast milk and an occasional drink of water.

Don't allow the child to go more than two hours in the daytime without being fed, and three to four hours at night, during the first six months.

Don't let the child fall asleep at the breast with the nipple in its mouth; nor must the breast be given it every time it cries.

Don't neglect to inform the mother that the breast must be bathed with some weak alkaline solution each time after nursing, and then annointed with some simple unguent.

Don't fail to have the meconium expelled at an early date.

Don't take it for granted the child's eyes are all right because you are not informed to the contrary.

Don't declare the mother, after nine days in bed, beyond the dangers of puerperal complications. Involution is a matter of weeks, not days.

Don't administer salines during lactation, unless you desire to diminish the secretion of milk.

Don't allow the breasts to become engorged with milk, lest inflammation and abscess result.

Don't be surprised if breast pumps fail to relieve a hard and tender mammæ; they cannot open up choaked gallactopherous ducts; such a condition requires persistent friction, massage, and hot applications.

Don't presume the infant's tongue is of necessity tied because it cries when it takes hold of the nipple; its gums may be sore, or the milk may be overheated and indigestible.

Don't fail to call attention to the risk the mother incurs in carrying her infant as soon as she is permitted to leave her bed.

Don't keep the child in a "sweat-box," as it were, by bundling it up in blankets.

Don't allow the infant to be tossed about as if it were a foot ball.

Don't grant any one permission to smoke tobacco in the same room with the child, as the fumes are highly irritating to the eyes and respiratory apparatus of the infant.

Don't have the child wrapped up in articles of clothing that have been dyed, lest the poisonous coloring matter comes in contact with the child's person and a high degree of cutaneous inflammation be excited.

Don't expect to succeed in the practice of obstetrics unless you are faithful, attentive, and ever solicitous about the welfare of your patients.

1703 SPRUCE STREET.

THE TREATMENT OF PUERPERAL MASTITIS.

BY CHARLES MEIGS WILSON, M.D.,
Physician in Charge of the Philadelphia Lying-in Charity.

INFLAMMATION of the mammary gland as the result of traumatism is so rarely met with that in this short paper it is unnecessary to consider it. Puerperal mastitis, on the other hand, is a sufficiently common accident; and the consideration of its prophylaxis and management is of very great interest to all engaged in active obstetric practice. The methods

advocated in this short paper are not original, and are not new. Yet they have not been generally accepted; and the mass of the profession still hold to the older and less effectual methods of treating this affection—alike so painful to the patient and so annoying to the practitioner.

The former method of *dry diet*, which lessened the volume of blood and reduced the source of supply from which the mammary secretion was drawn, and the administration of saline laxatives to promote derivative action from the bowels, were excellent in their way. But the old-fashioned topical applications of solutions of camphor, belladonna ointment or plaster, or solutions of atropia, or other agents of a like nature, in the earlier stages of mammary inflammation, as an abortive method of treating mastitis, and the later applications of poultices to hasten suppuration and parsimonious incisions to let out the inflammatory products, have always yielded discouraging results in the experience of the author. On the other hand, the plan of treatment herein advocated has always given happy results.

First, then, let us consider the prophylactic treatment of puerperal mastitis.

In hospital and private practice, the author has latterly adopted the plan detailed below, namely, the patient and nurse are warned against allowing the bowels to become constipated, and, instead of waiting for the customary injection, or dose of oil, on the third or fourth day, gentle action of the bowels is secured upon the second day by the administration of small doses of compound liquorice powder, given in the form of compressed pills—the pleasantest way to administer it—or of the pil. rhei comp., or some gentle laxative of like nature, in small doses, repeated until the desired effect is obtained.

Secondly, the nurse is instructed to wash the nipples with warm water before and after each time that the child takes the breast. After the child is through nursing, and the nipples have been carefully washed and dried, they are smeared with castor oil. This agent was selected because it has what the painters call sticking properties, and because the heat of the patient's body does not cause it to melt and soil the patient's clothing by running over it. For the reasons mentioned it is better than coca butter, or any of the petrolium jellies, for the purpose of anointing the nipples. If the nipple is at all retracted, a Needham nipple-shield is used (with a black-rubber teat substituted for the ordinary white teat furnished with the shield, in order that the child's mouth may not become sore from the lead used in bleaching the rubber). If the nipple becomes chapped or excoriated, the cracks are touched once a day with a 10 per cent. solution of nitrate of silver, applied with a small, camel's-hair pencil. When any overfilling of the mammæ is noticed, as evidenced by turgescence of the subcutaneous veins and the milk ducts, whether the condition of gallactorrhœa be present or not, the patient's consumption of liquid diet is immediately curtailed; gentle saline laxatives, such as drachm doses of the sulphate of magnesia, are given every few hours, until the bowels are freely open. A few circular turns of a four-inch shrunken muslin bandage applied around the patient's chest in such a manner as to make firm compression over the upper and lower third of each breast; and yet in such a manner as not to interfere with the child's ready access to the breast. Or, in place of the circular bandage, the ordinary Richardson bandage may be used.

The simple treatment as outlined above is prophylactic in character, and will generally suffice, unless the inflammation has reached an advanced stage. In those cases where this latter condition has been reached, or where, from the death of the child, it is necessary to suspend lactation entirely, it is the author's practice to cover the breasts with a thick layer of carded wool in order to equalize the pressure and to confine them as closely to the thoracic wall as possible, with double figure of eight thoracic bandage, using always a broad bandage. In doing this, however, care must be taken not to subject the patient to too severe physical pain, or embarrass the respiration by applying the bandage too tightly. No matter how tightly the bandage may be applied, there is no danger of injuring the mammæ if a thick layer of wool be placed over each breast before the application of the bandage. In those cases of more advanced inflammatory action where suppuration is inevitable, early incision of the inflamed area, with efficient drainage under antiseptic precautions, is the best possible means of relief Dry diet, with frequent evacuation of the bowels, obtained by the administration of saline laxatives, to promote derivative action of the intestinal glands, and pressure applied to the mammæ over antiseptic pads, will generally bring about a speedy amelioration of the distressing symptoms that most always attend mastitis.

These hints of treatment for one of the troublesome accidents of the puerperium are offered by the author after a large experience, in which, when they have been adopted, happy results have always attended their use.

DOUBLE PNEUMONIA COMPLICATED WITH ABORTION.

By WILLIAM F. WAUGH, M.D.

DURING the prevalence of influenza last winter, all my cases of pneumonia were treated by the use of hot poultices and the administration of the Febricide pills. These pills contain two grains each of quinine and acetanilide, and ⅙ grain of cocaine. There is nothing secret about them, and the object of this note is not to claim superority for any special maker of pills, but simply to advert to the merits of the formula. While the pills made by the Health Restorative Company were employed for convenience, and proved entirely satisfactory, any reliable retail druggist could prepare them quite as well, except for the coating. But the combination is one of very great value; combining, as it does, an efficient antithermic with a cardiac tonic, and a third drug—quinine—which shares in the action of both the others and has a special effect in combating the tendency to suppuration. Perhaps in no disease do we meet with the indications for this combination so perfectly as in pneumonia. And in the pneumonia prevalent last winter we had an opportunity of putting our methods of treatment to the most severe test offered during the present generation.

My records show that during the grippe period, I attended twenty-three cases of lobar pneumonia; all of which recovered. Ten of these were hospital cases; the remainder occurred in my private practice.

Out of this group I have selected the worst case, as the one which was in the greatest danger of death. She was a stout German woman, illiterate, living in unsanitary quarters, with an inefficient nurse. Everything was against her; yet she recovered. She was about twenty-four years of age, of good constitution and habits, except that she used beer moderately but regularly. I have learned to look upon this as of bad omen in pneumonia. She had been much disturbed

by her baby, about a year old, who had been sick for some time with the influenza. March 1 she was seized with a chill, and presented the characteristic symptoms of pneumonia. The disease rapidly extended to both lungs, until the dyspnœa was extreme. During the first three days my orders were not carried out by the drunken nurse, who was dismissed on March 3. By this time the patient was in a pretty bad state; the respiration being carried on by the upper lobes alone; the lips blue; breathing very rapid; temperature running up to 104.5° and pulse to 136. Vomiting had been troublesome before her illness, as she was about five months pregnant. It was with difficulty we could get any food to remain in her stomach for a few minutes at a time. During the night of March 5 she aborted; losing but little blood, the fœtus coming away easily. By this time the nursing department had been reconstructed, and food, medicine and poultices were attended to very nicely. Crisis occurred March 7, and the case went on to recovery without any untoward incident. The patient was discharged from treatment on March 22; convalescence being somewhat prolonged by the effects of the abortion, and by the bad hygienic surroundings. Alcoholic stimulants were used throughout in the same quantities the patient had been accustomed to before her illness. The above-mentioned pills were the only drugs given, except a few doses of wine of ergot, a teaspoonful each, just after the abortion. The case was watched throughout with the utmost solicitude; and the unexpected recovery was looked upon by all who saw it as a notable instance of the value of the combination employed.

Nor is the treatment of twenty-three cases without a death, during the prevalence of influenza, a record so common as to be undeserving of notice. The great work of Juergensen, in directing attention to the heart as almost the sole source of danger in pneumonia, has never received the general attention it deserves. People recover from pneumonia, in spite of their treatment with antimony, veratrum, aconite, or the depressant antipyretics given alone; and that in sufficient numbers to confirm their medical attendants in the use of these drugs. But the magnificent results of Juergensen, with hundreds of cases, and no deaths except in the aged, have never been paralleled. His methods of cold baths, quinine, red wine and raw beef, seems too peculiar to find general acceptance in this country, where the cold bath has never really extended beyond hospital practice. The object, however, sought in my own method of treatment, is precisely the same as that of Juergensen—to sustain the heart, directly, and by combating the fever that saps the strength of the heart and increases its labor. With him I say: It is the heart, always the heart. Here lies the danger; here must be the remedy. Every means we employ for treatment acts for good only as it strengthens this organ or relieves it of its burdens. Antipyretics accomplish the latter object; it is necessary to see that they do not hurt the patient more by lowering his cardiac power than they do good by lessening the fever.

An Indian story, published last Wednesday in the *Star*, revives the fallacy as to the danger of bringing a frozen person into a warm room. The story tells of an Indian woman who laid out her frozen lord on the ice and thawed him out by dashing buckets of ice-water over him. It has long since been proved that hot applications are most likely to succeed in restoring persons who are frozen.

THE RESORPTION OF IMMATURE CATARACT BY MANIPULATION CONJOINED WITH INSTILLATION.

By L. WEBSTER FOX, M.D.

Some months ago the ophthalmic world was notified by Dr. Kalish, who read a paper before the New York Medical Society, that he had had success in dissipating immature cataracts by massage, boric acid, and glycerine. This new treatment, which promised much, was received by the profession with grave doubts, but by the laity with much hope; especially those who were suffering with immature and mature cataracts. The dread of an operation makes the majority of those afflicted postpone an operation as long as possible. It is only their extreme helplessness which makes them consent at all. A second operation upon a person who has gone through successfully with one eye is never dreaded. Cocaine, aseptic care, a good knife, and a steady hand, usually bring good results. Knowing this, a patient's consent is obtained without much difficulty.

At the last meeting of the same society (November 24, 1890), Dr. Kalish read a second paper, wherein he repeated his assertions and reported continued progress.

Dr. Noyes, in the discussion which followed this paper, regretted that Dr. Kalish had not stated the kind of cataract which he considered suitable, and the kind which were unsuitable for this treatment. As a probable cause for the improvement of vision in certain cases, Dr. Noyes explained as follows: "It meant that the serous fluid which had become effused into the substance of the lens, between the fibres, gradually became spontaneously absorbed, the lens adjusting itself to the new condition, became more homogenous, somewhat more dense, and thereby vision was made better."

There is no doubt that in the earlier stages of cataract, we find an occasional interruption of vision; for some weeks a patient will complain of dimness of his sight, then a clearing up will manifest itself, and so these intermittent stages continue for months. If such a patient were to apply any collyrium at such a period, he would think that he had found a panacea for his cataracts.

Among country people (I speak of the Pennsylvania Germans) there is a popular idea that molasses dropped into the eye afflicted with ulcers of the cornea and cataracts, will cure these diseases. I have just removed a cataract from such a patient; he declared positively that the molasses did clear up his vision when he first applied it, but soon lost its magic power.

A patient has recently been under Dr. Kalish's treatment for two months. The treatment did not benefit this woman at all; although the patient thought that during the first two weeks there was a change for the better, the husband who was in daily attendance upon his wife, could see no improvement. The patient was first examined by myself October 29, 1887. The record at that date shows mature cataract in the right eye; vision of the left $\frac{20}{70}$ sph. + 125 improved to $\frac{20}{40}$, with beginning cataract in this eye. The patient is blind in the left eye to-day. This patient gave the new method a thorough trial, but was not benefited.

If massage will prevent the development of insipient cataract, it is a simple remedy, but we must still have further proof that it will, before it can be put forth as a positive cure.

A CASE OF CHOREA DUE TO THE PRESENCE OF ASCARIS LUMBRICOIDES.

By A. E. ROUSSEL, M.D.,
Demonstrator of Physical Diagnosis Medico-Chirurgical College; Physician to the Southwestern Dispensary, etc.

MAGGIE A., white, aged six years, applied for treatment at the Southwestern Dispensary, November 17, 1890.

The mother states that the child has previously enjoyed good health, as, with the exception of a slight attack of measles when four years of age, she has had none of the other diseases of childhood.

No neurotic family history can be obtained.

About October 1 it is noticed that the child's appetite has become capricious, and that she is now fretful and apt to awaken several times in the course of the night, as if suffering from pain. This continues for a week, when it is remarked that she becomes feverish at night, and a few days later the same symptoms occur irregularly during the day. On the 18th of October, after a more than usually restless night, the mother notices that the muscles of the face have become subject to repeated contractions, and slight irregular movements are also noticed to involve the shoulders, as well as the extremities of the body. These muscular contractions, uniformly distributed on both sides of the body, rapidly increase in intensity, and do not entirely cease during sleep.

Present condition.—Fair physical development, but rather pale and anæmic.

The movements are so violent that the child has some difficulty in maintaining an erect position; the shoulders are violently jerked upward and downward, while the muscles of the extremities are in more or less constant motion. The muscles of the face are equally involved, while the movements of the tongue are so severe as to interfere to a certain extent with articulation.

Sensibility normal; no heart murmur. Bowels are apt to be constipated.

For the last four weeks patient has been treated at another hospital, but symptoms, if anything, have rather increased in severity.

The mother at this time having occasion to administer a dose of oil for the existing constipation notices the presence of a small worm in the stool, and becomes firmly convinced that this is the cause of all the trouble.

Following this indication small doses of calomel and satmin are prescribed, to be taken for three consecutive days.

November 21.—Since last visit six small worms have been passed, and the mother thinks child is considerably better, especially as the movements no longer occur during sleep. In fact there is a noticeable diminution of the choreic movements to be observed throughout the body.

The improvement is so marked that the mother's view is now seriously taken into consideration, and it is determined not to administer the routine treatment, but instead the child is simply given one-half teaspoonful of tinct. cinchona comp. t. i. d.

November 24.—Improvement continues; the muscles of the face are now but rarely contracted, while the movements of the body are much less violent. Articulation but little interfered with; sleeps throughout the entire night.

November 27.—Movements have almost entirely ceased, with exception of slight twitching of the hands.

December 1.—Child apparently well.

December 13.—Discharged cured.

OPERATION ON A GROWTH IN DOUGLAS' CUL DE SAC.

By C. C. MOORE, M.D.

MRS. A., aged fifty-four, married, no children, weight 176 pounds, flabby, but otherwise well-preserved, came under Dr. J. P. Strittmatter's care August 18, 1890, with the following history: About six months ago she began to have pain in the lumbo-sacral region, which pain gradually increased from week to week, and extended down the posterior and anterior parts of the thigh; being most severe on the left side. At intervals, the pain would be felt as a sharp shooting pain over the region of the anterior crural nerve, causing some spasmodic contractions of the muscles supplied by this nerve. Her trouble might easily have been mistaken for neuralgia or rheumatism. The peculiar features of the pain being its sudden accession on certain movements of the body, such as stooping or extreme exertion. The observation of this led to an examination of the pelvic organs, which resulted in finding a very hard round mass, about the size of an orange, with a roughened surface, low down in Douglas' cul de sac, freely movable, not very tender to the touch; but the pain down the thigh and back could be increased by upward and backward pressure of the tumors. Some days later, an anæsthetic was used, and the mass could be outlined with greater precision, and it was concluded that an operation would be the only means of permanent relief.

The tumor was removed by abdominal section September 25, and proved to be the left ovary, which had undergone ossification, and was so solid as to require a saw to make a median section. It was attached to the left horn of the uterus by a pedicle about half an inch long. This short pedicle with two inches or more of adipose tissue of the abdominal walls, made the ligation very difficult.

The patient made an uninterrupted recovery, returning from Dr. Strittmatter's house, where the operation was performed, to her home in twenty-one days. Since then, she has had some numbness and stiffness of the back, no pain on lateral or anterior flexion, but intense pain on posterior flexion.

PHILADELPHIA, 2349 E. Cumberland street,
December 16, 1890.

HIGHER PRELIMINARY MEDICAL EDUCATION. THE INFLUENCE OF THE GERMAN UNIVERSITIES UPON OUR PROFESSION.[1]

By HENRY E. DWIGHT.

FROM the Minutes of the Council, I extract the following authority for the selection of my subject, and its presentation at this meeting of the Academy, by request of the committee.

"In accordance with the leading objects of our organization, the education of the physician both preliminary and technical; the relations of the profession in this country to that of other countries, and the elevation of the literary, scientific and social standing of the profession, are especially appropriate 'subjects.'"

In view of the fact that the constitution was altered at the last annual meeting so as "to admit, in addition to those possessing the degree of A.B. and A.

[1] An address delivered before the American Academy of Medicine, December 4, 1890, at the College of Physicians, Philadelphia.

M., those who can present evidences of preparatory liberal education equivalent to the same"—the subject proposed in the following paper is of *vital importance* at this meeting of the Academy.

SUBJECT.

Influence of German Universities upon the Medical Profession.

I. *What is a University?* It is one thing in America, another in England, and something else in Germany. Hence the importance of a clear definition. The University of London has no teachers, no scholars, no buildings, except a room in the Burlington House, no libraries, no laboratories, and yet it has a brilliant staff of professors in the scientific and medical department. It is simply the Napoleonic University of France, without the principle of teaching. Why not, therefore, have a university without teachers, in this age of printing of many books on every subject? Because, the mind, the voice, the eye of the living instructor is as necessary to-day as in the days of the Athenian Agora, or Academia, with Plato, Aristotle, Socrates, and their pupils. In Germany, by these means, Hegel, in philosophy; Dorner, in theology; Hoffman, in chemistry, and Von Virchow in physiology, have been equally successful.

Hence a university is a body of instructors, teaching the highest knowledge, of the most worth to men, dealing with their dearest interests, appealing to their finest powers and noblest feelings.

To aid them in this blessed work let the university prescribe certain courses, and what rewards shall follow a complete and thorough training; and not for these alone, but let them arrange for those who thirst for knowledge, and earnestly desire the best sources, who should be welcomed to lectures suited to their needs, just as hungry souls pass through church doors always open to satisfy their wants.

Therefore, universities must teach, must vivify knowledge, by appeals to the discoursive reason and the creative imagination. But they must do more—among the services they render when rightly conducted, is the prosecution of scientific research into facts imperfectly examined. True teachers are always progressive, and not content with imparting the conclusions of others. They are investigators for testing the observations of their predecessors, while reaching their own conclusions. In the natural sciences, they will observe phenomena, collect and classify observations, draw inference and force nature to give up her secrets by experiments. Among the greatest teachers in science a large number have been and are now, discoverers.

In such an institution, famed for its teachers, and its original researches, a young student in medicine escapes exclusiveness, because the methods of one science are corrected by those of another. In such an atmosphere, theologians and mathematicians are not intolerant of the votaries of natural science. The student sees a host of men, eminent in genius and industry, who enlarge his horizon by bearing her torch into abstruse paths of knowledge, to masterpieces of thought and feeling which bear fruit in his own mind through life. Hence the catholicity of his views, the elevation of his feelings and the success of his pursuits.

II. *But What Claims Have the German Universities on our Peculiar Attention To-day?* Montesquieu, in his Spirit of the Laws, declared that the English Constitution is found in the forests of Germany, which is abundantly confirmed by Tacitus, and in later days, by Palgrave Kemble and Sir Henry Maine. English customs and laws migrated with the Pilgrims to America. The Germanic system of common fields was reviewed as commons, or town lands, in New England. The Saxon Hege, warden of the hedge, was the pound-keeper of the United States. In the Mayflower's cabin was representative government, and in the Pilgrim's soul there was reverence for law, to be maintained in a legalized organized town, with a church for God's worship and a seminary of learning for man's welfare, on which rested the institutions of a new world. Hence, Harvard and Yale are each the legitimate offspring of Teutonic ideas and German ideals—the "Alma Mater" of a numerous family.

German universities are controlled by the idea that *national unity* depends on *national culture;* that the *powers* that be are ordained of God; and that *rulers are to be obeyed* if they consecrate their *power* to the *welfare of the whole people.* The instruction is by means of lectures and the discussions are conducted by the professors. With the highest instruction in theory, are combined laboratories, clinics and the best apparatus for observation and experiment, to secure practical instruction. Diligence and scholarship are rewarded by degrees which the student must have before he can graduate or enter a profession. *Our colleges* are stepping-stones, like their gymnasia, to a university. We have no institution which the Germans will recognize as a university, and they have none which an intelligent American would recognize as a college. *Their high schools*, with a six years' course, furnish a general education, not a liberal one, and are designed to prepare students for business life. The school for liberal education is the *gymnasium*, with a nine years' course, which pupils begin at nine years of age. Linguistic and historical studies are the peculiar principles of the gymnasium, and as the Minister of Education, Von Gosler, officially declared in 1882, "are designed to prepare for independent study at the University."

The Real Schools, the rivals of the gymnasia, have received their inspiration from the people, and were promoted by progress in natural science, industrial pursuits, and in realism, instead of idealism. They emphasized modern languages, history, mathematics and natural science. The *real* was to be secured by the Real Schools. But German scholars are not prepared to sever scholarship from the ancient classics, to take in their place the modern languages, or translations of the ancients; and the German government prefers the gymnasium, for every position in its gift is accessible to its graduates. German physicians are not ready for such a change, for out of one hundred and sixty-three medical societies only three gave their unqualified consent for the admission of students in the Real School to the university medical department. There are serious complaints by the German government, respecting the efficiency of their medical students, and fear lest the change in the standard of admission to the university medical department might lower the standard of scholarship. They favor an increase of the study of medicine from four to five years to secure better preparation for the faculty.

The testimony of that eminent chemist, Professor A. W. Hoffmann, Rector of the University of Berlin, is very important to all liberally educated physicians. He is certainly one of the ablest instructors in that great university, and means what he says, viz. :—

"That all efforts to find a substitute for the study of the Ancient Classics, whether in the modern languages, mathematics, or natural sciences, have thus

far proved a failure. How often have I heard young men prepared in Real Schools deeply regret that they had not enjoyed the training of a gymnasium. The ideality of academical study, the unselfish devotion to science as science, the free exercise of thought, the condition and result of this devotion, recede in proportion as the classic basis, as training for the university is withdrawn. I have had much occasion to speak of this matter with friends devoted to physics and mathematics, and, with scarcely an exception, I found they had the same conviction."

These are strong words and merit careful consideration. Similar testimony, as to the value of a classical education, has been given by Liebig, the father of agricultural chemistry; Wolff, Hemeberg, Knap, Nobbe, Stohmann, Kühn, and others, all of whom are well-known chemists and discoverers in Germany.

III. *Does the History of Medicine Confirm these Claims?* Are we members of a learned profession? Should we rank with lawyers and theologians on University Catalogues? Have we a scientific profession? These are important questions in America as well as in Germany. Let us see.

Homer mentions two physicians, Machaon and Podalims, skilful in staunching wounds and relieving pain. The story of Æsculapius proves that as far back as legendary history, men made disease and the healing art a special study, and lived by the practice of their craft; but their observations and theories were worth little, because their philosophy was so crude. The labors of Hippocrates are constantly marred by his identification of effect with cause, restrictions placed on the dissections and undeveloped collateral science; still, his work is a monument of unwearied industry and wonderful fidelity to nature. The signs of facts, for the facts themselves, or effects taken for causes, ruined every system of nosology from Hippocrates to Cullen.

There was no sound anatomy or physiology to solve the problems of the diseased system, and not until the *analytical method* of the Alexandrine School pointed to dissection and unlocked the human frame, did true light reveal the phenomena of disease. Herophilus, their most celebrated teacher, made six hundred dissections, and acquired such authority that the proverb remains to this day: "To contradict Herophilus is to contradict the Gospel." But the famous fire at Alexandria destroyed his researches with the library, but not the principles which they discovered, for Philinus, his disciple, left the most important system of early medicine. Philinus urged a return to observation and clinical studies, and was surrounded by a host of observers, among whom was the celebrated Heraclidus of Tarentum, who first introduced opium into practice.

So far scientific medicine is confined to a university—Alexandria, with its literary treasures and learned men. Let us pass from the East to the West, from Egypt to Italy. Pliny assures us that the Roman people had been without a physician for six hundred years. In some things the world is not wiser now than at that period. Then people resorted to certain temples, even in the severest epidemics, as now to the shrine of St. Vitus, where the "faith cure" had its most numerous disciples as well as victims. St. Ossifyga cared for the growth of bones at Rome, just as St. Ursula now cares for them when dead in the Church of the Eleven Thousand Virgins at Cologne.

In Rome, and at this epoch, appeared the Elder Pliny, who collected in his Historia Mundi all the systems from Hippocrates to his own, and has left in his history many original views and reflections, as evidence of the profound mind of a great naturalist.

From Pliny to Galen, the inquiries multiplied exceedingly, because Galen revived the principles of the great physician of Coos, and held undisputed sway in medical matters till the sixteenth century. Devoted to anatomy and physiology, especially the former, his authority became as infallible in medicine as that of Aristotle in philosophy. With Galen, early medicine lost its greatness, and with the downfall of the Roman empire it retrograded likewise, but during the history of that empire, so far as progress was made in the principles and practice of our art, it was on a *scientific* basis. Æsculapius was enthroned "at Rome, and not at Canossa."

The age of Dante was the period of the renaissance, when science was divorced from superstition and charlatanism. The first modern dissection of the human subject was made by Mondini di Luzzi, towards the close of the sixteenth century, when the tone of the European mind influenced art as well as medicine. But the public authorities censured Mondini, and dissection ceased. In the seventeenth century, Vesalius resumed them, and laid the foundation of modern anatomy. The purity of his intentions, and his noble views, removed popular prejudice, which enabled Ambrose Paré first to turn to practical use the labors of his predecessors, and, as surgeon to several European sovereigns, by systematizing the researches of his predecessors, lay the foundations for the structure reared by John Hunter, Dupuytren, Abernethy, and Sir Astley Cooper. During the eighteenth and nineteenth centuries, such stars of the first magnitude as Morgani and Scarpa in Italy; Haller, Börhave, Heister, and Sömmering, in Germany; Dupuytren, and the illustrious Bichat, in France; Cullen, and the Hunters, in England; all eminent physicians and surgeons, continue the work of scientific research in medicine and science, based on facts and not on theoretic principles, in a field of inquiry commensurate with the three physical kingdoms of nature.

Surely, *the Germans have not erred* in their estimate of a classical and scientific training for a physician up to the nineteenth century, if the history of our profession means anything in the development of the race.

What shall I say of *our* century, now drawing to a close? How the labors of our predecessors pale before the wonders of the nineteenth century! Physical examinations, chemical tests, microscopical histology, anæsthetics in surgery, have certainly elevated medicine to a science, and its practitioners to the front rank of her votaries, entitled to the respect and gratitude of all enlightened men. Every tissue of the body is under the microscope, all living organisms are the products of elementary cells, so that every difference of structure implies a difference of function. Thus we mount from the simple cells to the marvelous structure, man, the paragon of animals, the beauty of the world. Under the careful study of the German Kolliker, the liver is revealed as a complex and beautiful structure, symmetrical in design, with an arrangement of lobules, cells, nerves, and blood-vessels, worthy of the warmest admiration, not simply to make bile, but to repair the waste of nerve tissue.

No less, the eye, when under the microscope, bears the happiest results. The discovery of the retinal expansion of the optic nerve, or Jacob's membrane, has wonderfully elucidated the phenomenon of vision. Those nerve fibres are specially fitted to the undulations of light. What a change in our theories of color vision!

Anæsthetics have robbed surgery of all its cruelty and half its danger, extended its sphere of action, increased the proportion of recoveries after severe wounds and mutilation, and insured the safety of obstetrics. Within fifty years the operation of stone will probably become obsolete. Small-pox is no longer a possible danger to life. Typhoid fever is rarely fatal, and typhus is almost unknown, except in the wake of armies or famine. Madness is now a curable disease, and the drugs employed are less loathsome than the disease. Fluid extracts and active principles take the place of nauseating powders and tinctures.

The causes of disease are more thoroughly studied and better understood. From a cold in the head to pulmonary phthisis, from lupus to cancer, bacillus is the password, no matter what may be the "grippe" query. Is the bacillus the cause or a consequence of the disease? Let that star of the first magnitude, now in the zenith of Berlin, so guide our wise men, now about to visit him from the East, that we may all have a quick deliverance from *the scourge* of mankind!

Mr. President, and Fellows of the Academy! I thank you for your patient attention. May I ask for your careful consideration?

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THE WEST INDIES AS A SANITARIUM.

By WILLIAM F. HUTCHINSON, M.D.

CHAPTER VII.

PERHAPS the most important of all the West Indian islands as a resort for invalids, is the one we are now about to consider.

All others have some peculiar attractions and characteristic value; this seems to combine most of the former, and to add to the latter some new features that are entirely its own. Situated as it is out of the line of curvature that marks the chains of mountain peaks extending from Northern to Southern Continental America, which we have grown to regard as the only remaining traces of a lost continent, its geological formation differs radically from them all. It is peculiarly and entirely an island that has been built by the unremitting and prolonged labor of coral insects, and as is common with such islands, it possesses a drainage peculiar to them, an almost entire absence of hills and valleys, a slight growth of forest, and a surface almost level and slightly elevated from the sea.

It has, from its discovery, been the only one of the islands that has continuously remained in possession of the mother country.

From its first settlement it has been the home of an educated and civilized body of colonists, who have studied its capability in the light of every modern advantage, and have made it what they claim it is, an epitome of England.

In its teeming population (and there is no spot on earth, not even excepting China, so thickly settled), nothing in the way of schools or means of advance has been forgotten, from its university, which is in close relation with two great English schools, down through its high school and those of lower grade, the utmost possible care has been taken to bring the level of education of its inhabitants to the standard of older lands. People who went there first, carried with them their habits of thrift and comfort, and in the new land where climate was no obstacle to full development, they have succeeded in erecting a class of homes both for themselves and visitors, superior in every way to those of the other islands whose advantages have not been so great.

There is nothing that an Englishman takes greater care of than his personal comfort, and I found in Barbados that this essential item to the traveling invalid had been so thoroughly cared for as to leave little to desire. Even an American hotel is not lacking, kept by an American manager, with meals served upon the American plan; a large, handsome, airy building, capable of accommodating three hundred or more guests, with every comfort that we are accustomed to find in our hotels at home, and not a few of the luxuries. It is true that with the American hotel, American prices have come to the island, and it is

out of the question that one can be housed at the Marine, without paying about as much as he would at a first-class New York or Philadelphia hotel. There are, however, several native institutions of the same kind where the usual island rates prevail, and where one may live as comfortably as possible for the regulation two dollars a day.

Besides the hotels in the city of Bridgetown, there are others on the northern coast; notably the Crane and the one at Bathsheba.

There are no surface streams in Barbados, but beneath, in the white coral that forms the roads and the main part of the island, many feet below the surface, there are rivers that circulate in caves of considerable dimensions, and from one of these pure, fresh water is now supplied in abundance to the city of Bridgetown.

Surface drainage is almost unknown. The porous nature of the land makes any extensive system of sewage quite unnecessary, and in the most crowded sections of the town one may walk about between the thickly built cabins of the blacks, without meeting anything offensive to sight or smell, and this perfection of natural drainage is one of the greatest advantages to invalids that the island possesses. The next is its freedom from mountains and valleys. Unobstructed, the steady trade winds that have come across the sea for thousands of miles sweep from one side of the island to the other, and carry away with them in their kindly arms every atom of miasm and every sign of poisonous vapors. From morning until night, and all the night through, these winds search out through the slightly built and always open houses every corner and cranny, and cleanse it with a besom that knows no stay. The absence of trees to any considerable amount, adds to the general healthfulness of the land by avoiding obstruction to the unremitting play of the beneficent trades.

For this same reason the temperature of Barbados is a particularly steady one. During several weeks of residence upon the island my thermometer marked an average through the day of seventy-eight, with a fall of ten degrees each night. Through the hottest hours, and these were from eleven to four, there would be a rise of ten degrees, and the sun, almost vertical, was reflected back from the white streets and house walls with a force that needed to be protected against; but the winds were so strong, so steady, and carried away from the surface of the body the insensible and sensible perspiration so fast, that the sensation produced was one of comparative mildness, and the danger of sun-stroke to the unaccustomed visitor was greater than it would have been with a higher temperature, without the steady breeze.

One of my party, who was unacquainted with the peculiarity of Barbados in this direction, started for a walk in the middle of one of these bright days, from the Marine hotel to the centre of the town, a distance of about a mile, without the protection of a sun umbrella, which no native would have neglected; he paid for his carelessness by a sharp attack of sun-stroke, and although almost a year has passed, the effects of that blow have not been recovered from. Every one who goes into the street in Barbados at midday, should carry a protection over his head against these powerful, vertical rays. It is better, however, to avoid walking, where cab fare is as cheap as here, and where animals are accustomed to the heat.

The approach to the island is one of extreme beauty. When the traveler has for a week past been studying pictures of scenery of mountain and glen; has been watching in living volcanoes and riven rocks the evidences of terrible forces that have buried a continent, and has been growing accustomed to types of flowers and animals peculiar to volcanic lands, the change is as great as it is pleasant. To the formation of all other islands of the group, to the especial beauties that one has to climb thousands of feet to find, to the deep forests and hill lakes of Dominica, Saint Lucia and Martinique, Barbados is an exception, dressed in light green and white.

Approaching its soft slopes from the westward, one is strongly reminded of carefully cultivated English hills, an illusion which disappears only when the harbor is entered. But while running down the coast from the North, there are few things to mark the difference—at least from twenty miles away.

No mountain ranges accentuate outlines that grow blue as they recede until lost in the bluer sky; no patches of dark color mark where thick forests lie, and no signal gleam from falling water shows where a white cascade catches sun-rays and sends them back to the watcher to tell where it lies hidden in mountain gorge.

Every acre of land is light-green or snow-white at that distance, with dividing lines of color marking fields; and with a strong glass this is resolved into trim farms, with windmills or tall chimneys for steam boilers to give the needed working power. Drawing closer, the land becomes characteristic, and it is plain that a new formation is before us.

There is nothing ancient in these low hills of coral stone, or shelving shores; nothing that appeals to the geologist or naturalist; only a new world for the student of human nature, who finds in this library—whose volumes are mostly bound in black, many a pleasant problem to be worked out beneath a lovely sky and with genial surroundings.

As we sailed into Carlisle bay, the harbor of the island, early in last February, an air of prosperity and business was seen at once. More than a hundred sail, of many flags, were anchored, among them a noble British squadron of nine men-of-war. Boats were pulling about in every direction, and speedily surrounded us to tout for passengers ashore, as we carefully sidled to our position and let go anchor. They carried any and everything, these boats, invariably demanding double fare at first—the custom hereabouts. But we were used to that, and a shilling apiece was all they got. Before us lay the city of Bridgetown, low in buildings, red as to roofs, spread out three miles in length by two inland, dominated by a cathedral tower, and half hidden in greenery. Rounding the breakwater, called the careenage—for they tip vessels half over, here, to scrape them clean—we ran alongside a stone quay and were ashore, to be surrounded by a crowd of darkies intent upon earning a penny from the new-comers. "Here am I, master!" "Your boy John, master!" "I's Uncle Sam boy William, master!" "Dis de way to de ice-house, master!" *Et usque ad nauseam.*

Most travelers who come here report the negroes insolent, devoid of education, and bristling with petty annovance. It is odd, perhaps, but I have never seen all this. They are persistent, it is true; but where human life is crowded as here, and pennies are hard to get, why should they not be? During a stay of weeks in Barbados, I have always found the blacks polite and accommodating, even to each other.

No fault can be found with the food supply in quantity or quality. Besides most of those vegetables which we are familiar with at home, there are one or two others that grow only here, of which the natives are very fond. One is the eddo, which resembles closely our home oyster plant.

I think that the density of population is what impresses a stranger most. It is like living aboard a man-of-war, where men are as thick as bees, and space for another one seems difficult to find. There is absolutely no privacy. Out from the town of Bridgetown, as far as you choose to go, the roads are like streets, with little boxes of houses along the wayside, each holding a numerous family, while troops of negroes stroll along the white way. Sit for a moment beneath a lignum-vitæ or bread-fruit shade, and negroes spring up from the ground to gaze and wonder who you are. This teeming, concentrated human life is the first novelty that a visitor sees.

In an area of one hundred and sixty-six square miles, one hundred and eighty thousand human beings live—and, apparently, live comfortably well. It is, perhaps, the most densely-peopled territory known, and this state of affairs makes itself evident at once in every part of the island.

Streets are crowded from building to building all day long, as a New York pavement is in the forenoon. The people are almost entirely good-humored blacks, clean, and neatly dressed in white. My driver, William, went through this mass at a steady trot, and they got out of the way easily, without a word of such abuse as is common in northern towns, not often needing his warning, "Look out da! Hi!"

My camera was a continual source of wonderment. They know that "De master takes pictures wid dat masheen," but that is all, and its production in the most secluded spot imaginable would bring together within two minutes an audience large, attentive, admiring, but never annoying.

They live very simply, these children of the sun. For food, fruit, flying fish, and yams are nearly enough; are nutritious, and cost but a trifle—say a penny or two a day. For clothes, plain, white material, which covers them completely, except feet, that are always bare, and an aged straw hat, picked up somewhere, is really more than they need in a climate where clothes are a burden, and Edenian attire something to be longed for. Their attire costs little more than fig-leaves.

One of their little houses, in many instances not more ten feet square, can be rented for about $2 a month; and water is free. So they get on very comfortably, and, except from habit, do not often beg. That your dog should come up and ask for food does not seem more natural than that these negroes should hold out their hand for a penny; and the brute animal takes a refusal with much poorer grace than the human. A stranger driving past (and every visitor bears his cachet upon his forehead) represents wealth, intelligence, and undisputed superior authority. Why should he not be asked for a penny? Clearly, there is no reason whatever,

Probably the best way of living, for a family that comes to stay several months, is to rent a house at Hastings or Fontabelle, the two chief suburbs of Bridgetown, and have their own home. A comfortable house for four or five persons can be found for $25 or $30 a month; and servants, better than ours on the average, can be hired at from $1 to $4 a month. There is no difficulty in getting a pleasant place a mile or two from the town, as horse-cars run to all the principal suburbs; and, once at home in the new climate, its highest advantages may be attained.

Artists will find constant amusement and difficult studies in the peculiar color effects that are so hard to catch. Just wherein it lies I cannot tell; but there is something extraordinary in the light of Barbados. My camera, quite trustworthy at home and in the Western Caribbean, played me strange tricks of over and under exposure upon the same plate. No views out of doors can be made instantaneously, and there is no certainty what the developer will reveal.

And the same disturbing element exists with colors. Black and white quite fail to express tropical effects; and so does the brush—at least, as far as I have seen. One may try as hard as possible to catch the green of yonder bread-fruit tree or mass of changing crotons; but before the sketch is done it is usually destroyed—an utter failure. With longer time some one will learn, doubtless; but no one seems to have done it so far.

Driving is a perennial delight. Roads of rare excellence wind in and out of shady groves in town, and extend over the island in every direction. Horses are fair, and can be hired at reasonable prices; so few people walk. A handsome two-horse landau, carrying five beside the driver, can be secured for $8 a day for a journey of twenty miles each way, which will carry one pretty well across the island. Cabs are many, and though wretched in appearance, as a rule, get one about cheaply enough. Twelve cents a mile is certainly a moderate price for two occupants, and that is what the charge is.

One can have a delicious sea-bath every day in the year. A reef of coral sand effectually protects swimmers from the immense sharks that infest all these seas, and the water is of a velvety softness that tempts to long indulgence. Daily baths are a necessity where the skin is so active, and a native would sooner neglect his breakfast than his dip.

The leading industry is sugar, and this year's crop is expected to be a phenomenal one, seventy-five thousand tons being the hoped for yield, which, at three or four cents a pound, will amount to a handsome sum. All the fields of brilliant green are cane, shading up from a delicate pea tint with under color of buff, to a dark grass-green, with whose deep shadows the peculiar light of this island plays strange pranks. Sometimes, watching a field, it is almost black, and then, as sunbeams catch it bending over, it will seem red. Through its tall stalks and hanging leaves the ever-present breeze sings of bountiful harvest and far away seed time, and then speeds on its way. In these fields there is no silence. One may almost see and hear the growth, so plain is the creaking and rustling that is going on around, so rapid the increase in size.

I was writing one morning about six o'clock at Fontabelle, and although the sun was not quite up, the pervading light that is never entirely absent from Barbados was reflected back from the sea to my table through bread-fruit and palm trees, as soft as from a sunset cloud. My thermometer marked seventy, and the nocturnal fragrance was not yet all vanished. Perfumes of roses contended with dying odors of the beauty of the night; and day sounds of birds were taking the place of the night-frog, whose musical double note had scarcely ceased to vibrate. Peace and beauty reigned, and as one deep breath after another of this pure, warm air sent blood to finger tips, life, under almost any pressure, seemed well worth living, and lovely earth very hard to part from. The passionate attachment that these simple blacks feel for their native land is easily explained at charming break of day; and a feeling of contentment pervades every nerve of the visitor who has escaped the chilling frosts and deadly winds of northern lands.

Among the best trips, indeed the very best in Barbados, are those by carriage to St. John's Church and Codrington College, and by train to Bathsheba, which

lies among the wildest scenery of this coast, whose grandest views cannot be very imposing since the land does not reach the altitude of a thousand feet at any point.

In company with Mr. Grundy, the courteous manager of the Barbados Railway, I recently made a visit to the North coast under the most favorable auspices. The little railroad is, itself, a curiosity. Only twenty-one miles long, it has twelve stations that rejoice in most ridiculously inappropriate names; and at every one of them the same amount of form and ceremony was gone through as if a train was leaving Liverpool for London. A black grenadier wore a helmet marked "Railway Police," and scared away small loafing darkeys with majestic wave of hand or suggestive touch of rattan. Porters, with their duty printed in big, red letters on cap-ribbons, rushed about among the six passengers that were going with us, as busily as if a thousand trunks were awaiting demolition; and shouted out, "This train leaves for Rouen, Windsor," etc., etc., with as much pomp as if it were actually starting for those very places in Europe. In a third-class carriage in front, a lot of jolly tars from H. M. S. "Pylades" were off for a day in the country where sugar cane grows and rum is plentiful. One of them had a guitar, and we presently heard a song, whose chorus ended with "From Scilly to Ushant is forty-five leagues."

Barbados is everywhere healthful, but when one feels depressed or exhausted with Bridgetown heat, or needs a little rest from hospitable attention, Bathsheba with its cliffs, its delightfully cool nights and excellent hotel, offers a change that few other West Indian places are able to present.

Among the many insects that fly about evening lamps and in pleasant gardens outside, I noticed a painful lack of brilliant colors. No painted moths nor shining fire-flies are to be seen, and the latter are unknown; so that the island offers none of the attractions to an entomologist that are so rich in Venezuela.

Poisonous reptiles are few and scarce; and St. Patrick must have made a flying trip to Barbados, as far as snakes are concerned. I hear of a few centipedes and scorpions, but they are found only in the neighborhood of sugar estates, scarcely ever being seen in town, so that people who fear inter-tropical lands in general as homes for venemous serpents and insects, may put their apprehensions aside if they conclude to go to this island.

One thing we had come to see was what is called the animal flower cave, a collection of actiniæ in one of the caverns that dashing water has worn in the rock-face, far below surface level, by years of steady toil.

No place, this, for women, so our ladies returned to the carriage and marooned it awhile, which is Barbadian for recuperation physical, while we climbed down a stony sort of chasm, until before us, a little way across, was the cave opening, and leading to it a narrow path along a ridge, steep, wet, and with most hungry looking waves rusing over it at irregular intervals. The guide watched his chance, darted over with a whoop; and watching ours, we followed. The tail end of a ferocious swell caught one fellow and I thought he was gone, but he escaped with a sound wetting, and we called him clumsy.

Inside, the floor was tolerably dry and quite safe, so after a little more abuse for our friend who had scared us so, we went into an inner chamber, and there in a circular basin with a stone floor, reposed a still pool of liquid glass. Now and then its shining surface was gently stirred by trickling streams falling into it, but it was almost incredible that water should be so transparent as this. Where there was no motion, nothing whatever parted eye from crevices in that floor, six feet below.

We gathered around, looking quietly at the water, when what had looked like the dead stem of a water-lily near me began to expand. "Look!" I whispered, in fear of spoiling the show; and in twenty seconds that pool seemed a blazing garden of flowers. With a prevailing color of yellow, of the tint of buttercups, there was enough of red and blue to make purple hues also, which changed as we gazed enchanted, with each slight motion of the plants.

Finally, Jack plunged his hand in after the nearest one, and, presto! the garden was gone, the pool was empty again. Quiet for a moment, and the play began once more, and so we had various acts, all alike. We were in hopes that the colors might change, but they were ever the same.

It is a bad place for rheumatism. Night and day the skin is working to its utmost capacity, and an unnoticed chill stiffens up muscles that refuse with painful persistence to be loosened. Bright's disease and diabetes gain rapidly under the influence of kidney rest, and remain improved, if not transferred too early to northern cold. For those who seek dissipation, who ask "What is there to do down there?" and who demand ceaseless occupation, Barbados is no place.

There is no theatre, no amusement of any kind, and the only departure from such mild fun as driving and sailing furnish, is taken at a social, well-served dinner or a pleasant dance, where each knows all the other guests.

But for quiet, rest and healthfulness, there is but one island of the Atlantic comparable to this, and there Americans find little except climate, and that rated at four dollars a day.

The same suggestions that I have previously made for clothing to be worn on other islands, are equally forcible here, with the exception that one can purchase garments made in excellent style and of the very best English goods, for what seems to be a ridiculously small price. For several years past I have had all my summer suits made there, paying for a first-class article from thirteen to fifteen dollars complete, and for an evening dress suit twenty-five dollars. Lady friends who were with me, fairly revelled in the cheapness of goods. A first-class dressmaker would come and measure her customer at the hotel, bring back the costume complete without ever trying it on, and charge for an ordinary suit, four dollars, for one made of silk, or finer goods with any amount of trimming, six dollars. Of course these prices would not include linings or thread, both of which were purchased by the customer as cheaply as other goods. In these days of increasing prices from tariff vagaries, it is refreshing in the highest degree to be able to purchase a suit of ladies' gear complete for seven or eight dollars, and if upon arriving home changes are necessary to fit them to the reigning fashion, it is more than likely that the least of these will cost more than the original price of the costume.

The only thing that cannot be bought here is shoes, for English feet, both male and female, are larger by several sizes than American, and care must be taken to carry a sufficient supply of foot-gear to last.

There is nothing more beautiful in the world than the play of color over the western sea beneath a setting sun. At Barbados the only difficulty that artists find in interpreting it is to obtain from their color-

boxes tints sufficiently brilliant, and if they do succeed in even a moderate degree in representing the glory of these sunsets, they are sure to be charged with manufacturing in the most absurd manner, combinations that cannot be even dreamed of by those not fortunate enough to have seen them.

This island is a health resort in summer as well as in winter. Invalids from South America and from the neighboring islands, resort here for coolness in July and August, as we of the frozen North for genial warmth in winter months. The result is a constant study on the part of the inhabitants of the wants and needs of travelers, with an effect that is especially comforting to those who go there.

Medical men are thoroughly qualified, competent and courteous gentlemen, and will receive their colleagues from America with a warmth of hospitality that is refreshing to a stranger.

I noticed a few lepers in the streets of Bridgetown, and learned from my friend Dr. Archer, that owing to the careful and stringent sanitary regulations in force, with isolation of these unfortunates, that they have been almost banished from the island and driven from the public streets.

Travelers going to Barbados this winter will fare better than we did last, for extra steamers have been placed upon the lines, with better accommodations and greater comforts. The only warning that I can give to those who think of going there is, that no one of the islands, not even this one, is a fit place for rheumatism in any form, or for advanced lung disease.

FONTABELLE, BARBADOS, MARCH, 1890.

The Polyclinic.

MEDICO-CHIRURGICAL HOSPITAL NOTES.

IN a recent lecture to the class, Prof. Keen gave them the following for preparing chromic acid catgut ligatures:

℞.—Aquæ ..... 2000 parts.
Acid, carbolic ..... 200 "
Acid, chromic ..... 1 "

Then add as much catgut as carbolic acid, viz., 200 grains; soak forty-eight hours, and dry.

Prof. Keen said that ligatures prepared in this way were prevented from being too early absorbed.

In a case of eczema squamosum, treated at the clinic, Dr. Stelwagon recommended tar as a most important remedy, in the following proportion:

℞.—Picis liquidæ ..... f℥j.
Sulphur ..... ℈j.
Ung. simplicis ..... f℥j.
M.—Sig. To be rubbed in morning and evening.

Patient was also advised to keep the hands out of water, as water would tend to irritate the parts, and otherwise increase the trouble.

Dr. J. Solis-Cohen advised the following prescription in a case of irritability of the vocal cords from over-use:

℞.—Tr. benzoini comp.,
Tr. opii camphor. .....āā f℥ss.
Aquæ ferv., q. s.
M.—Sig. Use as a gargle.

And direct the patient to use the vocal cords as little as possible.

Prof. Keen, in his lecture to the class on the antiseptic treatment, said that if instruments were boiled for five minutes in a 1 per cent. solution of sodium carbonate, it would prevent their becoming corroded and rusted, which is likely to follow when boiled in pure water.

FOR WHOOPING-COUGH.

℞.—Antipyrin,
Quininæ sulphat. .....āā ℥ss.
Elix. glycyrrhizæ ..... f℥iv.
M.—S. f℥j every two to four hours.

—*Waugh.*

CASE SIMULATING BRIGHT'S DISEASE.

Waugh presented a case which, from a cursory examination, looked like one of Bright's disease. She complained of lumbar pain, vesical irritability, short breath, and œdema of the ankles—the latter disappearing during the night. But her complexion was ruddy; her vision good; she had no history of headaches, nausea, vertigo, or cardiac disorder. The urine was not albuminous. Inquiry showed that she had had repeated attacks of rheumatism; and the urine was found to be highly charged with uric acid. The œdema of the ankles was accounted for by her weight and her occupation, which kept her standing for most of the time. She was directed to abstain from fluids and from nitrogenous food, and to take alkalies with saline laxatives.

ARISTOL FOR BURNS.

A severe burn occurred from scalding oil. The case was not seen for several hours, when three different applications had already been made to it. These were removed and an ointment applied, consisting of aristol in petrolatum, 20 grains to the ounce. In one week the dressings were removed. The healing had been perfect; not a drop of pus had formed, and the scalded surface was glazed.

—*Waugh.*

ERGOT IN CATARRHAL PNEUMONIA.

In a case of catarrhal pneumonia in an elderly woman, wine of ergot was given in drachm doses every four hours. The threatening symptoms subsided quickly, and recovery ensued.—*Waugh.*

In the Electro-therapeutical Department, conducted by Dr. W. H. Walling, much good work is being done. A few cases only can be cited.

TRANSVERSE MYELITIS.

This patient, referred by Prof. Waugh, was suffering from transverse myelitis, the bladder being paralyzed; the bowels totally inactive; with both limbs involved, the right being anæsthetic and the left partially paralyzed. A short course of galvanic applications restored the patient to comparative health and a restoration of lost functions, he returning to an active occupation.

SUPRA-ORBITAL NEURALGIA.

This patient, an old gentleman, was admitted to the hospital suffering from supra-orbital neuralgia, so intense in character that he could neither eat, talk, or swallow, the least movement of his jaws, or of the supra-orbital muscles giving intense pain. Before resecting the nerve, it was determined to try what electricity would do for him, all medical means having been exhausted in vain. Improvement began with the first application of electricity, and within ten days he was entirely relieved of all pain or discomfort.

POLYCLINIC HOSPITAL.

THE DIARRHŒA OF CONSTIPATION.

IN the course of his remarks on a case that was presented for treatment at the Medical Department of the Polyclinic, Prof. Soloman Solis-Cohen, alluded to the frequency of the condition, which has been called "the diarrhœa of constipation." The patients, as in the case before the class, frequently state that they have had chronic looseness of the bowels for many years. The immediate cause of seeking advice is usually paroxysmal pain, which may stimulate hepatic colic, or as in a case recently seen in private practice, may simulate renal colic. The so-called diarrhœic stools should be carefully examined, and the history carefully inquired into, with the minuteness of a legal cross-examination. The true facts will then be found at variance with the patient's statements. There will be much desire to go to stool rather than frequent passages; and the amount of fæcal matter passed will be found to be very small. The passages are small, thin, serous, foul-smelling, sometimes bloody, usually containing much mucus. Scyballa will occasionally be passed, usually with much pain and difficulty. They are commonly glazed with a glairy mucus, and often faintly blood stained. In other words there is a condition of irritation of the bowel, with insufficient evacuation of the contents. Frequent attempts at defecation, but little result. The paroxysmal pains are due to distension, traction and pressure. When the patient has been in the habit of taking opium mixtures to relieve the supposed diarrhœa, the abdomen may be found greatly distended from paralysis of the intestinal muscular layer. The percussion phenomena will be mingled tympany and dullness, the distribution of the sounds depending on the location of masses of fæces in the bowel. Usually the ascending and transverse colon will be found filled, and the transverse colon may seem to be much dragged down. Pains in the chest may be caused by traction upon the diaphragm. Enlargement of the liver, or ascites, may be mistakenly diagnosticated, unless care is taken to map out the dullness accurately, and not to be misled by the apparent fluctuation of the relaxed intestines. Headache, vertigo, languor, anorexia (sometimes boulimia) nausea, vomiting, are among the chronic or recurring symptoms, other than those already mentioned. The first thing in treatment is to thoroughly wash out the bowel. This may require several irrigations, supplemented by massage of the abdomen. When there is no absolute impaction, calomel may be given in single daily doses of five grains, with soda or aromatic powder, continued for two, three, or four days. Olive oil in large doses and castor oil may also be given by the mouth; or warmed and thrown as high as possible into the bowel an hour or two before the irrigation. After the bowel has been emptied a tonic-laxative pill should be prescribed for continuous use for long periods, with occasional resort to calomel, oil, and salines.

A good formula is as follows:

℞.—Euonymin..... gr. ij.
Ext. ignatiæ..... gr. ss.
Ext. belladonna..... gr. ⅙.
Piperini..... gr. j.
M.—S: One pill three times a day, after meals.

The number of pills daily, or the sizes of the doses, may gradually be reduced as improvement is manifested. Resin of podophyllum, leptaudrin, iridin, and the like may be used with, or instead of, the euonymin. Extract of cascara sagrada is very often useful. The dose is from two to five grains. The ignatia may be replaced by strychnine or nux vomica, the belladonna by hyoscyamus. The commonly used pill containing aloin or aloes is not often useful, and the hemorrhoidal condition present often counterindicates it. Ipecacuanha is often usefully combined with the other agents.

The diet should be carefully regulated. At first it should be restricted to milk (peptonized, or with digestive agents added), beef-tea as a stimulant, thin soups, coffee, and the like. After a little while, when the intestinal irritation and catarrh have subsided, meats and vegetables may be added. Bran bread and other substances intended to assist peristalsis by irritation should not be given. Laxative fruits may be eaten in moderation. Pastry, sweets, and other indigestibles are to be avoided. Plenty of water, preferably hot water, should be drunk. Enemata may be required from time to time, to wash out accumulations, and at first should be given daily, then on alternate days, then weekly, as a routine practice. Abdominal massage, and faradization of the intestines are of great service.

It is quite evident that treatment of the apparent diarrhœa by astringents and opiates is a mistake, and yet this practice is so common as to render it worth while to caution against the error, and to insist on careful examination of the patients. There are other cases of apparent diarrhœa and colic which may turn out to be something quite different on examination. "Walking typhoid fever" is familiar to all; but it is not as generally known as it ought to be, that serious and even fatal results have occurred in cases of perforating appendicitis and other inflammations in the neighborhood of the cœcum, as a consequence of neglect, due to insufficient inquiry into the case. We should never accept a patient's diagnosis, until our own investigations have proved it to be correct.

THE New Jersey Sanitary Association held its Sixteenth Annual Meeting in the Assembly Room of the State House, at Trenton, on Friday and Saturday, December 12 and 13. Papers were read on the following subjects:

The Use of Smoke in Testing House Drains, by Inspector P. L. Lippincott, of Asbury Park.

The Relation of Ground Water to the Health of a Community, by Col. George E. Waring, Jr., C. E., of Newport, R. I.

The Death-rate of Different Localities in New Jersey, by James Owen, C. E., of Montclair.

Annual Address, by the President, George P. Olcott, C. E., of Orange, on Sanitation in House Construction.

What We Do Not Know About the Climate of New Jersey, by Prof. John C. Smock, Ph. D., State Geologist.

Report of Committee on Stream Pollution. C. Phillips Bassett, C. E., of Newark, Chairman.

Deterioration of Water in Reservoirs and Conduits: Its Causes and Modes of Prevention, by Charles B. Brush, C. E., of Hoboken, and Geo. W. Rafter, Civil and Sanitary Engineer, Rochester, N. Y.

Physical Training, by Prof. Chas. H. Raymond, of Lawrenceville.

The Sewers of Trenton, by Prof. Rudolph Hering, C. E., of Philadelphia, Pa.

Discussion on Traps, opened by Ezra M. Hunt, M.D.

The Times and Register

A Weekly Journal of Medicine and Surgery.

New York and Philadelphia, Dec. 20, 1890.

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CHRISTMAS GREETINGS.

FOR once THE TIMES AND REGISTER has relaxed from the customary sternness of medical journals and has donned Christmas greens and a Christmas spirit. During the past year its success—thanks to you, indulgent reader—has been so marked, and of late tokens of sincere appreciation have poured in upon us from so many sources, that we cannot resist the impulse to celebrate; and feel quite proud of our bright holiday dress.

We take this occasion to thank both our readers and contributors for their warm support, and to assure them of our well wishes for their success, and only wish we could stand without their doors and carol a hearty

> "God rest ye, merrie gentlemen,
> Let nothing you dismay."

With all due modesty, we would also state that if our readers are pleased with THE TIMES AND REGISTER now, they will be more than pleased as time rolls on; for we do not intend to stand still, but will constantly be carrying out plans of improvement and enlargement, so that we hope to be a valuable assistant to the country doctor, a scientific elucidator to the investigator, a reliable help to the city physician, and an upholder of the medical sciences to the entire profession—progressive, fearless, and truthful—we shall also truly be "a thing of beauty and a joy forever."

We trust our pardonable self-praise will be regarded charitably, due allowance being made for the effect of this joyous season upon our editorial staff, and we also trust that our readers will return our wishes for A Merry Christmas and A Happy New Year, and echo with us Tiny Tim's cry of "God bless us, every one."

MAGNETIC HEALING.

THAT inquisitive member of our editorial staff has been on the war path again. This time with the view of ascertaining something about magnetic healing. Dr. Fritz, of Arch street, Philadelphia, was the potent healer from whom the information was obtained. Dr. Fritz is very likely known to many of our readers by the modest advertisements he pleases to insert in Philadelphia's dailies, which frequently contain long lists of cases cured by him.

Our representative found him to be a large, fine-looking man, with a pair of keen eyes, gentlemanly address, of about fifty years of age.

Of course, we had to represent ourselves as a patient, and gave the symptoms of a severe case of "nothing at all," and then sought to draw the "doctor" out, which task was easily accomplished.

Dr. Fritz says he *always* cures, and *never* fails; although he frequently adds medicinal treatment to the magnetic. He confesses that he has no idea what magnetic healing is; "I simply do it, that's all."

Our recent interview with Christian Scientists led us to ask if his method was similar. "Yes," he said, "the results are all obtained in the same way; magnetic healing, hypnotism, Christian science, and electricity are all the same thing."

We know of a certain gynecologist of Philadelphia who would enthusiastically endorse this statement, but won't mention names.

"Do you hypnotise your patients?"

"No; I don't think you could call it hypnotism, although it amounts to the same thing. I don't put them to sleep, but heal them instantly."

"What method do you employ?"

"If the patient has rheumatism, I simply place my hand on the affected limb and ask if he feels pain. 'Yes,' is replied; then I do so—" and here Dr. Fritz frantically waved his hand in front of our representative's face—"and say, 'Throw away your crutches; the pain's gone; you're well.' And, sure enough, he is. Then I tell him to jump about, and stamp his feet, or otherwise use the limb violently, but no pain can be induced."

"To be sure," he added, "this condition may last only a few weeks; but two or three such treatments will produce a permanent cure."

"How do you account for such cures?"

"I don't account for them; I can't explain them; I only know I can do it. But I do not always use it, as few can afford to pay for it; and then it is very weakening, and exhausts me greatly."

"What are your charges?"

"Never less than $10, and up to $100."

"You give stage performances, do you not?"

"Yes; and have greater success in treating people on the stage than in private practice. In such a performance—I had forty-eight last fall—I ask all who wish to be treated to seats on the stage, and go from one to another and heal all. I do not need to ask their symptoms, or what ails them, but simply secure a statement of their troubles for the sake of the audience. I classify patients into *positive* and *negative*. If I go to a negative patient and, when questioning

him, see that he is doubtful or opposing, I will not attempt to heal him, but proceed to a positive or sensitive patient, heal him, and then return to the negative patient, and have no difficulty in healing him."

"Do you use no other treatment?"

"Well, if mechanical trouble exists, I remove the cause. For instance, while I can make the deafest person hear the ticking of a watch inside of five minutes, yet if there is a hard lump of wax in the ear, I will remove this first. Not long ago, at one of my performances, I had a woman brought to me with organic disease of the heart, so bad that she had to be assisted up the platform steps by her husband. I merely layed my hand upon her breast and said: 'You are well, run up and down those stairs!' Her husband was scared to death when he heard me say this, but the woman obeyed and even ran up another flight of stairs, without the least painful results, and is a well woman to-day."

"You say," remarked our representative, "that your method is similar to 'Christian Science,' yet what I know of the latter is that they argue the non-existence of disease or evil."

"That is merely to effect the patient. What doctor does not lie to his patients? Why, d—— it, they all do; so do I. But I have been too open and honest, and were I to begin life over again, I would be dishonest—honest to myself, of course, but dishonest to others."

"This power—is it acquired or a gift?"

"It is a gift. When I first began to heal by laying on of hands, I knew nothing whatever about it, nor do I understand it now. Practice, however, has given me additional skill."

"You say, it is very fatiguing to you?"

"Yes; and in stage performances when I am healing other cases, such a power goes forth that the more sensitive cases can't stand it, even although I am not treating them, and get sick at their stomachs and have to leave the stage."

"Does the act of healing require any mental effort, or any exhibition of will-power on your part?"

"No more will-power or effort, than when I strike this table."

"How do you account for the fatigue?"

"I don't account for it. I don't understand what the power is, anyhow; all I know is that I can do it. I am not an investigator."

"You also say it is similar to hypnotism and electricity. What do you mean?"

"Well, the results are obtained in a similar manner; but in hypnotism only one man out of ten cau be influenced, while magnetic healing is absolulely infallible in every case. Regarding electricity, we know what it does—but who knows what it is? It is a power, that's all we know about it. So it is with magnetic healing, it is a power, but even I who have practiced it for years, don't know what it is."

"Why is it, doctor, that you are looked upon as a quack by the profession?"

"Simply, because I don't conform with their limited ideas. But they are quacks themselves. Look at Dr. ——, down the street, and then Professor ——, and the great Dr. ——, why they are worse quacks than I am by far, and yet they are looked up to by the profession."

Since the gentlemen mentioned are subscribers to this journal, we will mercifully forbear mentioning names.

"Then," Dr. Fritz continued, "look at Brown-Séquard. He was looked upon as a light of the profession until he began to sell a quack-medicine; then he was denounced as a quack. Then, look at Koch! Why d—— it, he'll be called a quack, soon. But then, we are all cranks, all cranks!"

The outlook for the profession had grown so very black that our representative felt inclined to close the interview, feeling that he had obtained as much as the readers of THE TIMES AND REGISTER could bear at one dose; and this inclination became a firm conviction when he read the inscription of a placard over the doctor's desk, which read: "One dollar will be charged for consultations lasting over ten minutes."

Such is magnetic healing; or more correctly speaking, such it is not; and this brings back forcibly the closing lines in The Hunting of the Snark: "For the Snark was a Boojum, you see!" Although the poem sets out to tell what a Snark is, it neglects to inform the reader what a Boojum is, and, therefore, we are left in perplexing doubt as to what either animal actually is.

Annotations.

INFANT MORTALITY.

DR. WILLIAM M. CAPP, of Philadelphia, in a very interesting article on this subject, printed in the San Francisco *Evening Bulletin*, says:

The class of neglected and abandoned infants met with in foundling institutions is peculiarly disqualified for any prolonged struggle, for instance, especially against peculiarly adverse circumstances. They are often the offspring of vicious parents, and with tendencies to disease, and of deficient vitality. To these disadvantages are sometimes added positive neglect and exposure, the ill-effect of which may not be overcome by even the most assiduous subsequent care and attention. Beside, hospital attention to young infants can rarely be equal to the motherly attention of a well-ordered home. It should not, therefore, be surprising that the mortality rate in foundling establishments will be greater than in the general community.

In the official annual statistics of Paris, published in 1880, there were received in hospitals: In 1874, 2,171 foundlings, of whom about 35 per cent., or 758, died within twelve months; 1875, 1,720 foundlings, of whom about 40 per cent., or 694, died within twelve months; 1876, 1,648 foundlings, of whom about 34½ per cent., or 568, died within twelve months; 1877, 1,493 foundlings, of whom about 36 per cent., or 540, died within twelve months; 1878, 1,890 foundlings, of whom about 34 per cent., or 643, died within twelve months; and of those who succumbed during this series of years from 36 per cent. to 48 per cent. in the different years died in the first seven days; from 31 to 43 per cent. died in from eight to fifteen days, and 26 to 38 per cent. died in from fifteen to thirty days.

The "Austrian Statistical Hand-book," published in 1888, gives the following figures, which show such

a low average death rate that one is inclined to think they must be made up upon some plan different from that of the others quoted in this paper. Total number of foundlings in Austria for 1886 reported is 42,877, of whom 5,615 died (13.09 per cent.) Of those retained in hospital 6.71 per cent. died, and of those sent outside to the country 14.97 per cent. died. The averages for the years 1882 to 1885 inclusive are about the same as those given for 1886. It is fair to suppose that many sent from town died, but having been lost sight of, the death did not figure on the records of the institution.

In the Philadelphia Almshouse some years ago, the infant mortality rate was so high that it was mentioned only under the breath, but vigorous measures were instituted to better the conditions, and a decided improvement is manifest. Rigid hygienic rules were enforced, the quality of the food was looked after, and strict antisepsis, chiefly by thorough cleanliness of the feeding bottles and other utensils employed about the children, was insisted upon. Also all the women in the institution who were capable were retained as long as possible to act as wet nurses.

Official statistics upon these subjects are not gathered by the Government in this country.

THE MEDICAL INSTRUCTION OF TO-MORROW.

THE under-graduate colleges of America will, within ten years, abandon all their so-called didatic—or, as Professor Darling used to delight to call them, scholastic—lectures, and give only clinics, demonstrations, and laboratory work. Thus much they will eventually learn from the success of German methods of medical instruction, which are to be found in perfection in the post-graduate schools. Why a man should sit for three or four hours a day, in a badly ventilated room, to hear excellent medical and surgical essays, which he could much better learn from a text-book, or from the grinding of a quiz-master, is beyond enlightened comprehension. It is only the force of custom of a hundred years that continues this. Medicine and surgery can only be taught from the patient, the cadaver, and the laboratory. Long discourses, unillustrated by one of these, are a great waste of time and patience. If the *organization* of under-graduate schools cannot get beyond this, they had better not take up Professor Morrow's idea of seizing the post-graduate schools.

—*The Post-Graduate.*

MASSAGE.

THE tendencies of modern medical practice are toward physiological rather than medicinal treatment. Witness the growing popularity of massage, and of institutions like those of Drs. Ford, Patchen, and Stone, where the gymnastic training of the young is carried out in a scientific manner. How can any parent, who takes pride in the healthy and symmetrical appearance of his children, neglect the opportunities offered by these establishments? When physical development is taken from the rude hands of the illiterate trainer and directed by the skilled physician, there is no longer the danger existing under the old system. In fact, the difference is precisely that between quackery and science; between treatment by persons who are ignorant alike of the nature of the body, of its disease, and of the remedies employed, and intelligent management by the educated physician. As to the art of massage, since it has been developed by men of the great professional skill of Benjamin Lee, its possibilities are becoming recognized. In the treatment of nervous diseases, massage has inaugurated a new era.

THE TIMES AND REGISTER has always taken a deep interest in these matters, and takes pleasure in calling attention editorially to the establishments directed by these gentlemen.

TREATMENT OF TYPHOID FEVER BY HYDROTHERAPY.

DR. E. B. CHASSAGNE, of Kansas City, says: "The author does not exactly follow the directions of Brand, and prefers to use the warm bath gradually cooled down to 60°; it is to be cooled down by cold water poured in, and the water in the bath is kept in constant motion. The duration of the bath should be not under fifteen minutes, nor over thirty; in the majority of cases four baths in the twenty-four hours answer the purpose; in grave cases more baths will be necessary. I give a bath every time the temperature reaches 102°. The patient ought to take his time in leaving the bath, as he cannot take cold; thoracic complications are not produced by chilling, but produced by the fever; and statistics show that they are more frequent under chemical antipyretics than under the cold bath. If, on returning to bed, shivering takes place, the patient ought to be gently rubbed, and a hot bottle placed at his feet. In cases where intestinal hemorrhage appears, ice bags to abdomen instead of baths, and ergotin hypodermically in doses of 2 to 5 grains, according to the case.

Typhoid fever in children is not so fatal as in adults, and, by using hydrotherapic measures, we ought to save most every case.

In conclusion, I will say that chemical antipyretics ought to be left aside, as the only good they accomplish is that patients die with a normal temperature. The statistics show cold facts, and ignorance is the only excuse for not using hydrotherapic means.

—*Kansas City Medical Record.*

PERFECTED OBSTETRICS.

DR. ALFRED L. CARROLL, discussing "the influence of a more perfected obstetric science on the biological and social conditions of the race," has some very pertinent observations on the number of cases of "still-births" and the effect of the present conditions of obstetrical science. For instance, he says:

It is to be regretted that the registration of vital statistics is so imperfect in this country as to preclude any attempt to classify by months the mortality under one year; but the data, such as they are, indicate that, in the United States generally, about 25 per cent. of live-born children die during the first twelve-month.

It would not be unreasonable, perhaps, to assume that at least half of the deaths under one month are attributable to accidents in parturition, and that a large residuum of those occurring in the first year has a similar origin; but the admirable reports of Farr may enable us to go a step farther in the field of inference. The death-rate under one year per 10,000 births in England, for the three years ending with 1875, was 1,527. Of these, 95 were ascribed to the acute zymoses, 29 to "teething," 171 to diarrhœa, 263 to "lung diseases," 98 to tuberculosis, 128 to prematurity, 267 to "atrophy," 14 to "suffocation," and 251 to convulsions, leaving 211 "not stated."

The deaths from prematurity, "atrophy," and convulsions constitute nearly half of the mortality, all of the former and a considerable proportion of the latter two being referable to the time or act of parturition, and some of the pulmonary disorders having their predisposition, if not their origin, in atelectasis at birth. In Farr's March of an English Generation, based on the labor of over thirty years, he computes that the average deaths per million under one year will be 149,493, of which 30,637 will be from diseases of the nervous system, and 21,995 from respiratory maladies. West, taking a wider view of "nervous" disorders, ascribes to these 30.5 per cent. of all the deaths under one year, and to convulsions alone 73.3 per cent. of the "nervous system" mortality—equivalent to 33,421 to the million births. Nor is he any less cogent in his reasoning than in his statistics. The conclusions which he draws respecting the social conditions have the sound of true earnestness which is refreshing. Under this head he says: As regards social conditions, I have little to say beyond expressing the belief that misery rather than midwifery is responsible for most of the degradation which blots our vaunted civilization. It may be that in some cases such misery is the outcome of physical disability dating from birth or parturition, but in more instances it is the result of acquired vicious habits. Social statistics show that the numbers of murders, suicides, and other kinds of crime bear about the same proportion to population every year; but of the ætiology of criminality nothing can be positively affirmed. Even those who dogmatically ascribe all the ill-doings of the world to alcohol have still to find some antecedent factor, and to explain why the vast majority of consumers of alcoholic beverages refrain from crime. Inebriety is often the excitant, but the predisposition must be sought behind it. "*In vino veritas*" has a wider philosophical meaning than they who quote it ordinarily wot of.

The vexed question of heredity (not so much of disease as of proclivity to disease) has little relation to obstetrics, save as it has led some enthusiasts to imagine an impossible prophylaxis by forbidding the marriage of physically, mentally, or morally unhealthy persons, and in this way diminishing obstetric practice, except in illegitimate births; and it is doubtful if anything but a destructively retrogressive midwifery or an increasing prevalence of oophorectomy can materially reduce hereditary morbidity, since delicate, and especially consumptive, women seem to be more apt to conceive and less likely to miscarry than their more robust sisters. As a "glittering generality" it may be asserted that every obstetric advance which saves mothers from invalidism and children from incapacity for future effort must promote the social condition of the race, but politico-economic rules and the inexorable operation of natural laws will probably always overshadow in this respect the influence of medical science, or even of Congressional legislation.

A NUMBER of well-known physicians met last Tuesday evening, at 1403 Locust street, and organized a new club. Dr. O'Hara presided, and P. J. Martin acted as Secretary. The new organization was named the Ambroise Pare Club, after the famous French surgeon of that name. Dr. L. Flick was elected President, and Dr. P. J. Martin, Secretary. Dr. J. Healy, Dr. Prendergast, Dr. C. J. Hoben, Dr. L. F. Flick, Dr. M. O'Hara, Dr. Martin, Dr. T. S. Crowley, Dr. J. H. Wallis, and Dr. Strittmatter were elected as the Board of Directors.

Letters to the Editor.

A CASE OF DIAGNOSIS.

BESSIE H., aged sixteen, American, consulted me about what she supposed was a spinal trouble, as she had treated with one doctor for two years, with only temporary relief, and he sent her to the hospital for treatment, telling her she would most probably have to wear a plaster of Paris jacket, all of which not only worried the girl herself, but also the mother and older sister, who accompanied her on her first visit to the hospital. After questioning her thoroughly, I made an examination, and was much surprised at not being able to find any spinal trouble at all. Instead of there being any curvature I found the spinal column as straight as any. Not considering myself infallible, I called another doctor in to see the case with me, and asked him if he could detect any curvature or other spinal trouble. After thoroughly examining the case, he said he could find no trouble whatever with the spinal column. That being eliminated, I then began searching for the real cause of complaint, and found she was suffering from periostitis of the lower margin and angle of the right scapula, the same existing on the third and fourth ribs, anteriorly; both places were very sensitive to external pressure, and each pressure, unless exceedingly tender, would cause her pain. Upon further inquiry I found that for a year or more it had been her custom to carry to and from school, daily, from twelve to sixteen books, which were placed in a double-ended bag, such as the children now use for that purpose; this was invariably carried on the same shoulder. She also informed me that the teacher forbade their leaving any books at school, even during the noon-hour, and as she went home during that time, it necessitated her taking her books also. She lived ten squares from the school, and thus went over that distance four times daily, which would be equal to her carrying the said books four miles each day, which also caused her right shoulder to be somewhat lower than its companion on the opposite side. The patient's health was fairly good, though there was a bad family history, phthisis being in the family. I began a treatment that day, which was not changed for three months. The result was a complete cure. The last time I saw her, she looked the picture of health, and her sister said she was now gay and cheerful at home, and did not seem like the same girl.

DR. J. R. WALN.

PHILADELPHIA, December 11, 1890.

Book Notices.

THE PHYSICIAN'S VISITING LIST FOR 1891. Fortieth year of publication. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street.

This list contains all the really useful matter to be found in any of these books, and is still not so large as to bulge out the pockets inconveniently. We do not see how it could be improved.

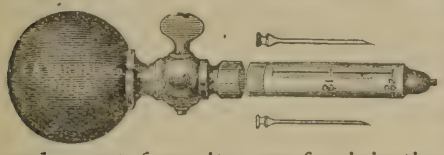
THE MEDICAL BULLETIN VISITING LIST, OR PHYSICIAN'S CALL RECORD. F. A. Davis, Publisher.

This list differs from others chiefly in that the name has to be entered but once a month; short leaves being inserted with the days upon them, one week on each. This is quite a convenience, economizing labor and saving bulk.

New Instruments.

KOCH'S HYPODERMIC SYRINGE.

We are in receipt of a Kock's hypodermic syringe, such as is used by him for his inoculation of the lymph for tuberculosis. The illustration represents the instrument so well as to require little additional description. All the parts are easily detachable, and can easily be kept aseptic. In use, the stop cock is closed, and the glass tube removed and filled; then the needle is attached, the bulb replaced, the stop-cock opened, when, by pressure on the bulb, the fluid may be readily forced out through the needle.



The absence of piston, screws, and packing aid greatly in keeping the instrument clean, and, apart from its use for injecting the lymph, it forms an almost ideal hypodermic syringe.

The instrument is manufactured by Messrs. E. A. Yarnall & Co., of Philadelphia, and we cannot refrain from complimenting them for their enterprise, for they placed the syringe in the hands of the profession simultaneously with the arrival of the lymph in this country. Such zeal deserves recognition and reward from the profession.

The Medical Digest.

FRENCH NOTES.

By A. E. Roussel, M.D.

One of the daily newspapers of Berlin, in speaking of Koch's communication proposes to render the examination of the lungs obligatory, by means of a law analogous to that of vaccination. At certain determined periods each person shall be compelled to be officially ausculted, an examination made of his sputa, and, if there be sufficient cause, to be treated, so that his fellow-citizens shall be protected from any tuberculous contagion on his part.

Latent Cancer of the Stomach.—M. Siredey mentions that an old woman entered the hospital for dyspepsia, with weakness of the legs, but with no signs of cancer, and otherwise in apparently good health. It is true a tumor was noticed in the epigastrium, but that was all, and besides the appetite was good. Death followed after a very short period of vomiting and emaciation. At the autopsy we found a cancer of the pylorus extending over the great curvature; the pylorus would hardly admit of the passage of a small sound.

—*La Médecine Moderne.*

Mortality from Hysterectomy.—M. Terrier reports his results to the *Société de Chirurgie.* By the extra-peritoneal method: In 1883, 2 operations, 2 cures; in 1884, 2 operations, 1 death by peritonitis; in 1885, 5 operations, 1 cure, 4 deaths, of which 3 are from peritonitis and 1 by internal strangulation; in 1886, 6 operations, 3 cures, 3 deaths, 1 from hemorrhage, 1 acute peritonitis, and 1 chronic peritonitis; in 1887, 8 operations, 4 cures, 4 deaths, of which 3 are from peritonitis; in 1888, 5 operations, 5 cures; in 1889, 7 operations, 2 deaths, 1 by hemorrhage, the other by internal strangulation; in 1890, 3 operations, 1 death. Total: 38 operations, 23 cures and 15 deaths. The mortality of hysterectomy by the extra-peritoneal method is 39.47 per 100.

If we divide the 8 years into 2 periods of 4 years, we find that the mortality in the first period is nearly 50 per 100, while in the second period it is reduced 30 per 100.—*La Médicine Moderne.*

Tubercular Peritonitis and its Cure by Laparotomy (König).—Since 1884, when König published his first article on the treatment of tubercular peritonitis by operation, he has collected 131 observations, of which 14 are personal. Of this total, there were 120 women and 11 men, which would seem to prove that numerous operations have been due to errors in diagnosis. Of the 131 cases operated upon, 24 were lost sight of after the operation; 23 were ameliorated, and 84 cured (65 per cent.); some of the cures have been maintained for several years, and he can claim a definite cure for one-fourth of those operated upon; the operative mortality has been 3 per cent.

The mode of intervention has been most variable: simple laparotomy with evacuation of liquid, incision with antiseptic lavage, removal of affected organs, and curetage of tubercular cysts, circumscribed, etc. The employment of antiseptics has had no influence whatever on the result. Cures were obtained in all forms of tubercular peritonitis (serous, suppurating, diffuse, cystic, etc.), and even when the lung and other organs were complicated. According to König, circumscribed intestinal tuberculosis is, in the majority of cases, the cause of tubercular peritonitis. We do not know as yet why, after a simple laparotomy with evacuation of liquid, the intestinal lesion tends to spontaneous recovery; but one fact remains decidedly demonstrated, and that is the frequent and absolute cure of peritonitis by means of operative intervention.

—*Revue de Thérapeutique.*

Treatment of Diphtheria by Iodide of Potassium (S. Zinenko).—The author has obtained very encouraging results by the internal administration of iodide of potassium in diphtheria. It is administered to adults in doses as high as 60 grains a day; children aged from one to fourteen years are given, each day, twice as many grains as they have years. The remedy is continued until the appearance of symptoms of iodism, which is generally noticed from the second to the fourth day of the disease. In case of cardiac weakness, tonic treatment is given at the same time. The author uses neither applications nor cauterization to the throat, as he considers them both irritant and useless. On the other hand he employs the atomizer with a solution of boric or salicylic acid of from two to three per cent. The same is also to be used as a gargle. With children he uses lavage of the pharynx, according to the method of Dr. Stegenski. All the patients receive frictions of mercurial ointment in the region of the sub maxillary glands (22 grains, twice daily). Toward the end of the treatment, hydrochlorate of quinine is given for its tonic effect. This method has been applied in all to 28 persons. Some of the patients died. At the same time, in another service of the hospital, where the patients are treated by other methods, 16 deaths occurred out of 29 cases. In another hospital, where the hygienic surroundings are better than in the service of the author, during the same epidemic, the mortality was 50 per 100.—*Bulletin Général de Thérapeutique.*

The Italian Minister of the Interior has forbidden the use of Koch's lymph, except in the hospital.

Medical News and Miscellany.

TEN THOUSAND DOLLARS' worth of oleomargarine has been seized in Pittsburgh stores, where it was being sold as butter.

FIFTY persons of both sexes in Liverpool have formed a Mahometan congregation. It is thought that this faith may become popular in England.

GAUTEMALA has been invaded by a worse enemy than the Salvadoreans. Small-pox has entered the Central American republic, and has killed 1,200 persons in seven weeks. Physicians are badly needed.

AN alleged analysis of Koch's remedy is cabled to the daily press, stating the components to be: Ptomaines from tubercle cultures, cyanide of gold, and glycerine. As to the cyanide, this is not consistent with Koch's statement, that in three weeks the dose must be increased to five hundred times that first employed. Cyanide of gold is not an agent to be used in any such manner, unless the first dose is infinitesimal.

THE LYMPH AT BALTIMORE.—There are now nine patients at the Johns Hopkins Hospital inoculated with Koch's lymph. Owing to the fact that sufficient time has not yet elapsed, no effect is observed except the usual pain in the back, and desire to cough. The subjects for the experiment were selected with great care, and what are known as free patients. There are many wealthy patients who are waiting to be treated, if the operation proves successful. A new supply of lymph is expected next week.

ALMOST in the exact geographical center of Wyoming is a mountain of solid hematite iron ore, more than a mile wide, and over two miles in length. Besides the iron, the mountain contains lignite coal enough to warm the entire world for a century, a dozen dried up lakes of soda, where the soda is deposited to the depth of over 300 feet, some of the lakes being over 600 acres in extent. In the mountain adjoining there is a petroleum basin larger than those of Pennsylvania and West Virginia combined. Out of some of the springs pure, rectified coal oil is trickling at the rate of twenty or thirty barrels per day.—*Star.*

The lamp-tree probably grows on the mountain slopes; while the Indian residents are a match for anybody.

LADY DOCTORS AT A DISCOUNT.—The native women frequenting the Balrampur Hospital, Lucknow, are so much behind the age that they elect the services of male in preference to female doctors. This is what Dr. Rice, the Inspector General of Civil Hospitals, says on the subject: 'With regard to the 934 major surgical operations done in the female hospitals, it is but right that I should state that the large majority of them have been done by the Civil or Assistant Surgeons, and this is right generally. The greater part of them are of a nature unconnected with the sex of the sufferer. I have, myself, seen women insist that the operations should be done by the male doctor; and not only that, but that they should be done in the male hospital, so as to make sure of his operating. The principle of management is that, as far as this is concerned, every woman shall be left a free agent in the selection of the particular division of the hospital in which she shall be treated."

—*Indian Medical Gazette.*

WITH the object of advancing scientific study and settling a now mooted question, Dr. J. B. Mattison, of Brooklyn, offers a prize of $400 for the best paper on Opium Addiction as Related to Renal Disease, based upon these queries:

Will the habitual use of opium, in any form, produce organic renal disease?

If so, what lesion is most likely?

What is the rationale?

The contest is to be open for two years from December 1, 1890, to either sex, and any school or language.

The prize paper is to belong to the American Association for the Cure of Inebriety, and be published in a New York medical journal, *Brooklyn Medical Journal*, and *Journal of Inebriety.*

Other papers presented are to be published in some leading medical journal, as their authors may select.

All papers are to be in possession of the Chairman of Award Committee on or before January 1, 1893.

The Committee of Award will consist of Dr. Alfred L. Loomis, President New York Academy of Medicine, Chairman; Drs. H. F. Formad, Philadelphia; Ezra H. Wilson, Brooklyn; Geo. F. Shrady, and Jos. H. Raymond, editor *Brooklyn Medical Journal.*

PATENTS, ETC., on medical subjects, issued December 9, 1890:

Nursing-bottle holder	J von Huppmann-Valbella	New York, N. Y.
Forceps for dental wedges	G. J. Davison	Richmond, Va.
Surgical bandage winder	W. Gilfillan	Steinway, N. Y.
Vaginal syringe	J. R Trott	Morrisouville, Ill.
Bleaching hair	F. G. Wiselogel	Indianapolis, Ind.

TRADE-MARKS.

Medicinal cure for gonorrhœa (The words "Stop it sure." with the word "shure" arranged across the face of the words "Stop it")	S. D. Bell	Lexington, Ky.
Cough-syrup. (The words "Persian Cough-Syrup")	Murphy Bros	Jamestown, O.
Topical remed for the cure of corns and other callosities. (The word "Cornease")	The Clark Johnson Medicine Co	New York, N. Y.
Remedy for diseases of the blood, stomach, and kidneys. (The words "Dr. Clark Johnson's Indian Blood Syrup," and the representation of an Indian)	The Clark Johnson Medicine Co	New York, N. Y.
Remedy for bronchial affections. (A monogram of the letters "J. E")	J. Easton	Brockville, Canada.
External application for the cure of headache. (The words "Hedake Kolone")	J. H. Lakin	Boston, Mass.
Condition powders to cure hog-cholera. (The representation of a hog bearing the words "Van Cholera Cure" and the figure of a sickle)	A. J. Van Syckle	St. Mary's, Kan.
Medical preparations for lung diseases. (The pictorial representation of a globe surrounded by a band studded with bottles, in imitation of handles of a steering wheel; two sailor boys above the globe at the wheel; the whole floating within clouds)	F. Leitch	Turtle Point, Pa.

CHARLES J. GOOCH, *Patent Attorney.*

LOCK BOX 76, WASHINGTON, D. C.

TO CONTRIBUTORS AND CORRSEPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

The Times and Register.

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PAGE

ORIGINAL ARTICLES.

FATHERS AND SONS. By Geo. T. Welch, M.D., Passaic, N. J. - - - - - - - - - - 581
THE PHYSICIAN AS A WITNESS. By M. Cavana, M.D., Madison Co., N. Y. - - - 584

THE POLYCLINIC.

PHILADELPHIA HOSPITAL:
Hemorrhoids - - - - - - - - - - - 588
Œdema of Scrotum - - - - - - - - - 588
Fever Mixture - - - - - - - - - - 588
Pediculosis Pubis - - - - - - - - - 588
Acute Lobar Pneumonia - - - - - - - 588
Acute Pharyngitis - - - - - - - - - 588
Indolent Ulcers and Eruptions - - - - 588
Tertiary Syphilis - - - - - - - - - 588
Bubo - - - - - - - - - - - - - 588
MEDICO-CHIRURGICAL HOSPITAL:
Antiseptic Treatment of Typhoid Fever. *Godfrey* - - - - - - - - - - - - 588
Asthmatic Attacks. *Godfrey* - - - - - 588
Pruritus Vulvæ. *Godfrey* - - - - - - 588
JEFFERSON MEDICAL COLLEGE:
Acute Tonsillitis - - - - - - - - - 588
Chronic Ulcer. *Stelwagon* - - - - - - 588

PAGE

Ataxic Paraplegia - - - - - - - - - 588
Acute Rheumatism - - - - - - - - - 588

EDITORIALS.

Go Slow - - - - - - - - - - - - - 589
A DISAVOWAL - - - - - - - - - - - - 590

ANNOTATIONS.

Report on the Cure of Tuberculosis - - - 590
Immature Cataract - - - - - - - - - 591
A Physiological Theory - - - - - - - 592
Marriage as a Remedy - - - - - - - 592
Anti-vivisection and the Royal Society - - 592
The Present Status of the Tuberculosis Question - - - - - - - - - - - - 592
Health of American Girls - - - - - - 592
Heredity and Responsibility - - - - - 593
The Treatment of Epilepsy by Dieting - - 593

LETTERS TO THE EDITOR.

Injustice to an Editor - - - - - - - - 594
The West Indies. *Hutchinson* - - - - - 594

BOOK NOTICES.

Wood's Medical and Surgical Monographs - 594
Treatment of Hemorrhoids. *Agnew* - - - 594

PAGE

THE MEDICAL DIGEST.

Boils Microbous. *Drury* - - - - - - - 594
Infant Feeding. *Sachapelle* - - - - - - 594
Ipecacuanha in Labor. *Draper* - - - - - 594
Stricture of the Urethra in the Female. *Barnes* - - - - - - - - - - - - - 595
Intestinal Obstruction. *Jessett* - - - - - 595
Toleration in Medical Ethics. *N. Y. Med. Times* - - - - - - - - - - - - - 595
Progress in Abdominal Surgery. *Thompson* 596
Trephining for Epilepsy. *Minor* - - - - 596
Deaths from Anæsthetics. *Kirk* - - - - 596
Diet for Diabetics. *Lewis* - - - - - - 596
Hints on Treatment of Ulcers of the Cornea. *Buxton* - - - - - - - - - - - 596
Treatment of Puerperal Fever. *Dorr* - - 597
Diphtheria. *Sympson* - - - - - - - - 597
On Splints. *Roberts* - - - - - - - - 597
Further Researches by Koch. *Lister* - - - 598
Clinical Observations on some New Pharmaceutical Preparations. *Reed* - - - - - 598

MEDICAL NEWS AND MISCELLANY, 599

Original Articles.

FATHERS AND SONS.[1]

BY GEO. T. WELCH, M.D.,
PASSAIC, N. J.

WHEN the New Jersey Medical Society was formed in 1766, there was not a hospital in the State; the art of obstetrics was a mysterious and dangerous rite in the hands of midwives; inoculation for the small-pox had but recently come in vogue; yellow fever was creeping up the sounds and rivers, and the children of the horrified colonists were dying like sheep with the "angina suffocativa."

The insane were kennelled at home, and chained when wild and boisterous; their fury was thought to be of Satanic origin, and the evil spirit was whipped over their shoulders with many a rough and biting lash. The clergyman, with reluctance, saw his old legacy of physic diverted from him by aspirants who reverenced only his sacerdotal functions. The conjuror and magician thrived openly. The simpler prowled beneath midnight moons for timely herbs and panaceas. The active principles of drugs were little known; enormous doses of Peruvian or Jesuit's bark were given in fevers, and all other medicines were administered with liberal and heroic hands. Instruments of precision in diagnosis were almost unknown. The opthalmoscope, the spectroscope, the stethoscope, the sphygmograph, the laryngoscope, and the otoscope, the clinical thermometer and the rhinoscope were all inventions of, and came into use in, our century. Specula vaginæ, though known to the ancients, had fallen out of use during the last century, and like the microscope in its wide applicability, are practically new discoveries. Percussion, as a means of eliciting a knowledge of thoracic diseases, though discovered by Auenburger in 1753, and made known in 1761, was neglected, universally, and passed out of memory until 1808. (Snowden.) Auscultation, though known in some obscure way, by Hippocrates, who practised succussion, was discovered (Laennec) in 1816.

Our fathers were like blind men fumbling at the doors of light. They received rays they could not comprehend, and whispers of intuition fretted them with doubts, like unhallowed suggestions from the lips of genii passing in the air.

They were not the practical, reliant men, we have to-day. They were devotees of theory, and tried to coerce nature when in her surly moods she jeopardized health and life. Cullen was the great authority in medical practice, and few dared to go outside of his dictum in these matters, although his pathology and nosology were founded on pure theory. He declared it to be the duty of a physician to control his observations by his theories, and not his theories by his observations. (H. J. Bigelow.) Boerhaave had gone out of fashion; Cullen had come in; Brown was to follow, while the philosophy founded on physiological experiment and clinical observation had scarcely stirred in its germ in a rare mind here and there.

Books were few. From 1775 to 1799, but thirty-nine American medical works were published, and of these but nine ever passed into a subsequent edition, and there was but one medical journal. (Billings.) What a stifling atmosphere were this to the geniuses of to-day, parading each with his fifty cases of malignant disease cured by some new remedy, which, like the New Jersey patent ballot-box, refuses forever thereafter to work at the most critical moment!

Communities are well-nigh frenzied to-day when infectious diseases are rife in their midst, and all that sanitary science can evoke is speedily brought in requisition to check and isolate the plague. But this was not the case during the last century, with the exception of the small-pox, for the houses of the sick were crowded with visitors, and servants and young people waited on the ill by turns. And indeed, it is only within a few years that the practice of congre-

[1] An address made before the New Jersey Medical Society, at its 124th annual meeting, at Schooley's Mountain, June 11, 1890.

gating in great numbers at funerals, and crowding into the room where one lies dead of a fever, has been discontinued. Not but that the writers of that day discountenanced such procedures and advised against them, but the allusions in their works show how prevalent was the custom. I have before me an old work on the Practice of Medicine, printed in 1772, in which the author arguing for fresh air, and against the pernicious habit of shutting up a great number of small-pox patients in one room, he having seen about forty children with the disease, cooped in one apartment, says: "I have seen poor women traveling in the depth of winter, and carrying their children along with them in the small-pox; and have frequently observed others begging by the way-side, with infants in their arms, covered with pustules; yet I could never learn that one of these children died by this sort of treatment." (Buchan.)

How slowly science creeps, before it gathers strength and walks erect, may be instanced in diphtheria; for as late as 1868, I find Condie, in his work on the Diseases of Children, arguing that this desperate malady is not propagated by contagious miasm, but is due entirely to certain endemic or epidemic influences, to which whole localities are exposed, affecting some simultaneously, and others at earlier or later dates. "That it has ever been communicated directly from the sick to the well," says he, "we have not the slightest evidence." It is deplorable that an author can so carry his prejudices into a medical treatise, prejudices which may warp the truth in thousands of minds, but you will all remember the combat Holmes had with Meigs and the elder Hodge, and in which his Damascus blade triumphed, before the world considered it established that, puerperal fever was contagious, and was disseminated by nurses and regardless physicians.

Drugs were used mostly in their crude condition far into this century, and many an atrocious dose passed current in the victim's throat. The millepede, which Cotton Mather apostrophized, and Oliver Wendell Holmes shudders over through all his fibres, was a popular remedy.

One old author of the last century, treating of chincough, (whooping-cough,) says, "The millepedes are greatly recommended for the cure of a chin-cough. Those who choose to make use of these insects, may infuse two ounces of them bruised in an English pint of small white wine, for one night. Afterwards the liquor may be strained through a cloth, and a tablespoonful of it given to the patient three or four times a day." In St. Thomas' Hospital the millepede was used in the preparation of "Balsamic pills," and was said, "to do great service where the lungs were stuffed with viscid or acrimonious juices." But in this same hospital, like a charlatan's prescription, it was found "useful in dropsies, the jaundice, the asthma, and gravel." In St. Bartholomew's the millepede was popular "in all glandular affections."

A wholesome regard for the autonomy of your digestive organs, prevents my more than alluding to a famous broth for invalids which occurs in a book called Practice of Hospitals, now in my possession, but once belonging to a New England physician whose firm hand signed our Magna Charta, the Declaration of Independence. It begins, "Take a viper of middle size, without the head, skin, or entrails; of water, a quart"—I say no more.

But lest the unwary should fall into the error that, the whole art of medicine lagged with the therapeutics of the time, it may not be amiss that I should recall that Boerhaave, Sydenham, and Morgagni strove magnificently to restrain the riot of these crass remedies. Harvey had discovered the circulation of the blood. Haller had demonstrated muscular irritability and its connection with the nerves. John Hunter and Bichat had founded our modern physiology and pathology, and a long line of illustrious names had heaved upward out of the sea of doubts and mysteries to break in tidings at our feet.

But the same conditions have held in the world from the remotest times. When the Cæsars trod in marble palaces, with all the state and retinue of Hyperion of old, there were kings who lived in sheepskin tents and groveled with their minions. When Phidias sculptured Minerva in gold, the lank Lake Dwellers were scrawling their unsightly etchings on the bones of animals. And though from far back in the centuries masters in our art inculcated simplicity in therapeutics, and were the healing spirits of their times, yet the mass of the profession adhered to their confusion of drugs, and do so to this day. As if the art, which is the most progressive in all the world; which peers into the Eleusinian mysteries; which touches the tangible and the intangible chords of life; beneath whose sentient finger flows the hereditary germs that hide in race; which deals with chemistry and spirit, with the individual and the state; whose mercies extend even to the criminal and the insane, the hopelessly maimed in soul and body; as if this art must be tried at last by the druggist's standard, and must rise or fall in the apothecary's diminutive scales!

But the people demanded their *quid pro quo*, and how did they receive it from the fathers?

For the cure of an intermittent it was recommended that, "two ounces of Jesuit's bark, half an ounce of Virginian snake-root, and a quarter of an ounce of ginger, all finely pulverized, be divided into twenty-four parts and made into boluses, of which one shall be taken once in two hours." In a pleurisy the physician was directed to bleed his patient quickly and thoroughly. "Ten or twelve ounces were to be let at once, and if in twelve or eighteen hours the stitch, with the other violent symptoms should continue, eight or nine ounces more were to be taken, and if the symptoms did not abate, a third or even a fourth bleeding was required." A blistering plaster was, also, to be laid on the affected side and suffered to remain for two days. This was said "to actually thin the blood, and by that means to assist in removing the cause." A nurse would have been kept pretty busy with a case of pleurisy on her hands in those days, and it was a common disease, for what with the bleeding and blistering, the regimen, and the multitude of drugs to be given, it was a serious matter for both the living and the dying. The patient was to be continually sipping barley-water, decoctions of figs and raisins, his feet and hands were to be bathed with warm water, fomentations were to be applied to the affected part, strangury from the blisters was to be prevented by drinking a quart daily of the emulsion of almonds, and lest he be costive, he must have clysters of warm water. Expectoration must be promoted by a pectoral decoction containing the vinegar of squills, of which he must take two tablespoonfuls once in two hours, and as this would make him vomit, he must needs take from time to time an electuary of olive oil and syrup of violets, with sugar candy powdered.

To procure perspiration he should have "some small doses of purified nitre and camphor," in his barley-water, four times daily. And to crown all, he must "take of a decoction of seneca rattle-snake

root two, three or four tablespoonfuls three or four times a day, as his stomach will bear it." If he has now had the temerity to survive the crisis, he is gently let down on little shallows of wine whey, until he lies stranded, weak and gasping, this side of the grave, "when, the pain and fever gone, it will be proper to give him some light purges," and other points of etiquette were to be attempted until he had got on his feet and escaped from the house.

So much for a disease self-limited and admitting of cure. But when it came to the confessedly incurable diseases, as phthisis, the physician redoubled his efforts, and multiplied his drugs. His despair of success seemed to embolden him, and it was seldom that he did not declare, as he retired discomfited from the long fight that, had his patient but had the courage to continue the nauseous doses, all would yet have been well.

But surely there is nothing old-fashioned about that. There are few physicians to-day who do not try a shot-gun prescription at an obscure disease—death lurking in ambush might receive a stray pellet and retire. And even in these last ten years, I have known the most maddening variety of drugs administered in pulmonary tuberculosis—digitalis for the swift laboring heart; expectorants for the cough; atropia for the night-sweats; brandy for the weakness; quinine for the fever; ergot for the hæmoptysis; forced feeding and cod-liver oil for the wasting. Then Koch's discovery—the germ—the micro-organism, and the doctors found that they had been dosing the man instead of the disease, and with the utmost *sang froid* they threw away their old weapons, and began with new. Now it is with injections of gases, inhalation of disinfectants, the breathing of baked air, the injection of medicated liquids into the lung cavities. We are after the infinitesimal parasite, and though he holds the man between himself and the faculty it shall be none the better for him, if it should be all the worse for the man.

Whence comes this all pervading worship of drugs! The wierd sisters on the blasted heath, circling before the fatal front of Macbeth, threw into the seething cauldron,

> Scale of dragon, tooth of wolf,
> Witches' mummy; maw and gulf,
> Of the ravin'd salt-sea shark;
> Root of hemlock digg'd 'i the dark,
> Liver of blaspheming Jew,

to work a charm of powerful trouble. And we throw into the vitals of mankind roots, and herbs and seeds; liquors, and gums and oils; sodas, and zincs and leads; poisons and counter poisons, and expect, somehow, to see evolved the charms of perfect cure. Let him who believes that drugs are going out of date, consult the prescription books of the apothecaries.

According to the statistics of "Commerce and Navigation of the United States, 1889," issued by the Secretary of the Treasury, I find that last year there were imported into this country, $13,186,290 worth of drugs. Not all these were to be dispensed to the invalid world, for some were used in dyeing in another way, but the vast majority was for this purpose, and I find, among many familiar items, that there was, of

Cinchona bark...	2,865,968	pounds.	
Opium.....	488,741	"	
Bal. of copaiba....	163,624	"	
Ergot.....	102,275	"	
Asafœdita.....	112,379	"	
Ipecac.....	30,034	"	
Manna.....	25,246	"	
Rhubarb.....	97,820	"	
Carb. ammonia...	656,014	"	
Morphine	20,724	ounces.	
Quinia sulph....	2,893,582	ounces	
Bismuth.....	83,248	pounds.	
Cubebs.....	51,020	"	
Aloes.....	246,270	"	
Iodine.....	186,987	"	
Jalap.....	24,043	"	
Nux vomica.....	426,891	"	
Salicine	8,776	"	
Muriate ammo..	2,381,427	"	
Chlor. potash....	2 525,763	"	

Of the preparations known as alkalies and alkaloids there was importation to the value of $581,693, and of pills, powders, troches, and other proprietary articles customarily prescribed, the value exceeded $418,548. The value of imported opium for the year was assessed at $1,612,942. The cinchona and quinine were valued at $1,326,694.

What feeling of pulses, and sounding of ribs, what thrusting of tongues, and analyzing of fluids, what grouping of symptoms, pausing, weighing and doubting goes with all these vast figures. What despair of patients and complacency of physicians; what rasping of drugs in the apothecaries' pots, rolling of pills, swishing of liquids. The drowsy nurse fumbles at vials, while the clock ticks drearily, and the sick man stares at the yellow ceiling, and groans at the trooping phantasmagoria of his mind. What hard-earned money is swallowed up for his dismal potions, ere he swallows them down. What pinched widows with staring eyes view with dismay the long array of half filled vials, gummed with tinctures and oils, that for all their filthy promises could not keep back life!

But that is the dark side of the picture, for we do save life, and lengthen years, and increase the wisdom of man. Drugs help us to a certain extent, but we have found more powerful magic in mountain air and plunging seas, music, gay converse, riding, driving, wheeling, rowing and travel. The sanitarian saves more to-day than did all the doctors of the last century—Jenner excepted.

It is only when we begin to despair of the virtue of drugs in some thrice mortal complaint that we begin to understand its nature aright, and to treat it upon sound principles. Two centuries ago I find that the practice in London hospitals for the cure of scurvy consisted of ointments, mercurial pills, guiacum, lime-water, antimony, medicated ales, and sea water. We cure it with fruits and vegetables. Small-pox is prevented by vaccination. Phthisis is cured by climate, if it is to be cured at all, and all our curious methods—our oxygen breathing, gas injecting—our inhalations, oils, pneumatic cabinets, cannot avail. Every physician varied his prescription for la grippe, and all got well; every physician varies his prescriptions in acute phthisis, and all the patients die.

Arbuthnot, writing in the middle of the last century, observes that in his time consumptions made up above one-tenth part of the bills of mortality. In ten years in New Jersey, ending with 1889, according to the last report of the Board of Health, out of a total of 230,709 deaths, 31,826 were caused by consumption, or about one-seventh. How we have improved on Arbuthnot with our new methods!

Diphtheria, under a variety of names, but chiefly that of cynanche, created a wholesome dread in the minds of physicians here a century ago. The mortality was very great, frightfully so, in some instances, and a paralyzing dread accompanied it, as a pest in a strange land, but it has now become fixed in its habitat, and is always present, not only in the cities of America, but in all the large cities of the world, and in spite of our modern methods, its slaughter of our innocents is as dreadful as of old. In the epidemic in England from 1854–1859, ninety-five per cent. of all the cases of nasal diphtheria proved fatal. There are epidemics in which the fatality is insignificant, as there are winds which breathe but murmurs of disaster, but anon comes a malignant epidemic which winnows our nurseries with flaming wings, and leaves a trailing pall from home to home, over a wide district, in a day.

In the earliest accounts of the therapeutics of this disease, which I can find, it appears that mercury

had its advocates, as now. That rare letter of Jonathan Dickinson's, written at Elizabethtown, 1738, speaks of the uses of this drug in that connection, and the essay of Dr. James Stratton, read before the New Jersey Medical Society, in 1789, lauds it very highly. He says that calomel affords the most effectual relief in this disease, and adds: "In several cases which have come under my notice, before I became acquainted with the use of calomel, I had the mortification to see bleeding, vomiting, blisters, and every other remedy which the utmost anxiety for the safety of the patient could suggest, prove altogether ineffectual; while on the other hand, in later instances, by the use of calomel only, I have had the satisfaction of seeing the most doubtful cases terminate favorably."

I trust that this was true, but in no other art is there so much danger from self-delusion as in this. Time and again have various authors reported a flattering series of cases, always of the malignant type, which have been cured by the use of mercury, or sulphur, or turpentine, or bromine, permanganate of potassium, chlorate of potassium, the perchloride of iron, and a host of others. The specifics have been numerous, but like the harpies they have devoured each other, while the perchloride of iron stands out pre-eminent as the most reliable of all our specifics here.

In the early days of medical history on this continent, the search for the principles in vegetables and minerals which might be applied to the alleviation and cure of diseases, was very active. Chemistry was pottering for gold, then, and the sunken-eyed alchemist had not found out the art of abstracting it from the pockets of the people, by offering the tempting bait of new and newer drugs. But now it has become an easier way of minting than if a man had the philosopher's stone. The fathers were content with bleeding, blistering, purging, leeching, sweating, vomiting, and applying old wives' remedies. The stout leathern sides of the hardy countrymen were flayed unmercifully, and their stomachs were buffeted about tempestuously with antimony and ipecac, and later with lobelia. The doctors had not then become an exclusive class, a profession limited to a certain work, and denied by the common consent of the public from any participation in the lordlier affairs of life. On the contrary, I find from Wicke's admirable History of Medicine and Medical Men in New Jersey, that, in the last century, out of the very slender ranks of the profession, Beatty, Bloomfield, Burnet, Condict, Dick, Dunham, the two Elmers, Green, Henderson, Pierson, Scott, the two Scudders, and Isaac Smith, were members of the Continental and the United States Congress. Many others were judges, members of assembly, sheriffs, and participants in the local affairs of State.

There have not been many medical Jerseymen during this century, who have lived conspicuously in the political world, and, as things go, so complicated has become the practice of medicine that not even the specialist can rise above the petty details of his profession. Whatever is of the eagle in him is tied down to some organ of our common humanity. By some "devilish cantrip slight," he has got himself into a cell where his horizon is limited to a single object.

The politician does not seek him when he makes up the roll of his candidates; the statesman at his old game of expediency and compromise, does not ask him for a new remedy for society's long ills, and festivals and civic days of pomp find him still plodding his dreary round, into which no trumpet blast comes calling.

Is this as it should be? Is it as it might be? Who is to blame for this isolation of our profession? Foremost it is the doctor himself. The fathers went about among men, interesting themselves in the varied and broad affairs of life, and came to be consulted and approved in other things than medicine. They were none the less successful in their profession, according to their information. The sons, on the other hand, have shunned the opportunities which might have led to a more varied distinction, and, instead of becoming senators, have been content to treat the senator's insomnia, or the lack-lustre of his brain. Human life, after all, is a cheap thing, and all our sacrifices cannot deify it. War makes slaughter of a nation in a day, and our only distress is that such hordes of the enemy escape. Explosions in mines, disasters on railroads, wrecks at sea, and all the minor accidents in town and country, decimate continually the ranks of men. Private feuds, the ignoble labors of the mills, famines—all that might be averted or avoided, claim each their quota of victims. Even when we are at our best, and thwart the desolation of plagues, or remove diseases once thought past all surgery, our sincerest art is expended upon a material elusive and fleeting. Must we then forego all things else to become the ministers of flesh that crumbles before us continually!

If there is honor, glory, pleasure, or distinction to be achieved, compatible with his work, the physician is the man who should have it. Money cannot repay his cheerful subservience in many a loathly disease. He performs duties that were too menial, but for the ray of science that falls athwart and dignifies them. He has learned to distrust praise, and gratitude is a rare virtue, too much like the smile on fortune's face, veneering a frown.

We need the expansive *bonhomme* of the fathers, not their roaring mirth, "with laughter holding both his sides," as evidenced in many a tale told of the provincial and early national days, but we too should taste of the leaven which leaveneth the whole lump of mankind. Nor need we fear to lose caste, or suspect the relaxation which draws the tense mind from its duties, for there were giants in those days as well as now.

But times change, and we change with them. And hereafter, out of the wrecks of the science we laud to-day, will be moulded an art more brilliant and enduring. The tide is setting in a new direction, and preventive medicine will claim the keen attention of the next century. The flood-tide of pharmacy will meet a counter-swell, which will happily overwhelm it, and divers into the sea of our literature will come up aghast at the débris of drugs which cumbered and bore us under.

THE PHYSICIAN AS A WITNESS.[1]

By M. CAVANA, M.D.,
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IT is the aim of the author in this endeavor to place conspicuously before the Fellows of the Association something of his observation and experience, in the attitude of an observer and participant, in the duties of the physician as an expert witness; trusting that the attempt may result in benefit to those of our number, if any there be, who have yet to experience the ordeals of a professional expert in our higher courts of justice.

Being a firm believer in the demonstrative methods of teaching, the author has attempted in this article

[1] Read before the N. Y. State Medical Association.

to reproduce such actual examples in language, and other minute detail, as, in his judgment, best illustrate the subject in question.

The yielding of testimony upon questions of fact, and opinions deduced from a scientific consideration of matters of theory and hypothesis, before a crowded assemblage in a court of justice, constitutes at the present educated age, a function of the physician and surgeon of an importance that demands far greater care and attention on the part of our profession than, in the judgment of the writer, it usually receives.

In the frequent legal issues upon questions of damage to life or limb, and in all of the trials for high crime, the physicians and surgeons are invariably material witnesses upon both sides of the action. During the trial of a fellow-being for his life or liberty, in every locality, human curiosity never fails to develop audiences of extreme proportions, comprising both of the sexes, representing every variety of occupation and grade of intelligence in the vicinity.

The local medical gentlemen, witnesses in the case, become the chief subjects of scrutiny, and of criticism or commendation, as (in the belief or impression of the listeners) they demonstrate while upon the stand; and, in consideration of the fact that laymen judge harshly, as also that many a reputable physician and skilled surgeon may trace the first descending step from lucrative practice to some foolish, unwise, and unnecessary oversight or misconduct before the public, while undergoing the enfilade of a cross-examination in court, it would seem as if the time had arrived when we should awake to the necessity of qualifying ourselves for better protection against such possibilities.

In offering a few examples by way of illustrating the tricks of attorneys, errors of physicians, and ignorance of certain judges in surgical science, while not clothed in the precise language employed in the cases mentioned, nor embodying the examinations entire, we aim to include in substance such portions of the language as are pertinent to our subject; at the same time maintaining the necessary respect for our professional brethren, who were actors in the drama, by the withholding of names, dates, and localities.

CASE I.—The People *vs.* Blank—a trial on the charge of assault in the first degree, to which Blank pleaded insanity. Dr. A. B., an eminent physician and surgeon, who attended the assaulted party, was made a witness for the people. In his direct testimony Dr. B. swore positively that the accused was not insane, and replied with equal firmness to the hypothetical question offered by the defense. Upon the cross-examination, the attorney for the defense, chagrined at the positive attitude of the doctor and his unmistakable eagerness for the success of the prosecution, propounded the following questions:

"Doctor, you swore in your direct examination that the defendant, at the time of committing this act, was positively not insane?"

"Yes, sir; I did."

"Now, doctor, upon careful reflection and consideration of all of the facts—his attempting suicide immediately after the act, etc.—isn't it possible, if not probable, that the defendant might have been insane?"

"No, sir; he was not insane—he was drunk."

"Well, doctor, did you drink with him that day?"

"No, sir; I never drink."

"Did you see him drink anywhere?"

"No, sir; I did not."

"Well, did you detect an alcoholic odor in his breath?"

"No, sir; I wasn't near enough to him for that."

"Then, doctor, I would like to have you tell this jury how in the name of Heaven you knew that this man was drunk."

The doctor failed to explain, but repeated his affirmation that he knew the defendant was drunk. Then followed the question:

"Doctor, are you familiar with the various forms of insanity?"

"I claim to be able to designate insanity from drunkenness."

"Very well, then you must certainly understand the anatomy of the human brain?"

"Yes; I claim that I do."

"Then, doctor, I wish you to tell this court and jury how many blood-vessels are contained in the human brain?"

The doctor replied: "I cannot tell you the number, sir, there are a great many of them."

"What, cannot tell the number of blood-vessels in a man's brain, the most important portion of the brain's structure?"

"No, sir; I can't."

"Well, doctor, if an expert's knowledge of insanity was on a par with your knowledge of the structure of the human brain, you would hardly be willing to send a fellow-being to prison upon such opinion or testimony, would you? Now, doctor, tell this jury how the blood reaches the brain?"

"Why, through the carotid arteries."

"How does it return from the brain?"

"Through the veins, of course."

"On which side of the neck are these arteries and veins?"

"Why, on both sides."

"What, do you swear that the blood does not go up to the brain through the arteries on the right side and return through the veins on the left side?"

"Yes, sir; I do."

"Doctor, are you as positive of this as you are of all of the testimony you have given in this trial?"

"Yes, sir; I am."

"Well, doctor, that's all."

The above questions were so purely ludicrous that no attention was given the matter by either the prosecution or its medical advisers. But in the summing up of the case, much energy was displayed upon this proof of the ignorance of Dr. B. The defending attorney, in the attitude of a conqueror, and with a sweep of his right hand (containing a volume of Wharton and Stille), argued that even a common student of physiology was conversant with this fact, and that every reputable physician of the land would affirm that the blood flowed upward through the arteries on the right side of the neck to the brain, and returned through the jugulars and other veins, on the left side of the neck. No allusion being made, however, to the *whole* truth that the blood also flowed upward on the left, as well as on the right, side, and was returned as well through the right jugulars. The jury and audience were, of course, convinced of the illusory argument, and withdrew from that court scene in astonishment at the surprising ignorance of that expert witness.

CASE II.—In the action of the People *vs.* Blank, under indictment for murder, and a plea of not guilty, the defending attorney drew from the lay witnesses to the autopsy the fact that a common wood saw and a stove shovel were employed in the act of removing the calvarium; also, that with the lifting of the skull the brain was displaced from its cavity. The details of the autopsy were so vividly drawn from these wit-

nesses, and so horribly pictured to the court that the sitting district judge turned his back to the witness-box in disgust, believing at that time that the entire testimony was unscrupulously manufactured for the occasion. But when the unfortunate coroner and his two physicians, who performed the autopsy, were respectively placed upon the stand and forced to admit all that had been detailed by the previous witnesses, the astonishment of the court and the surprise and disgust of the entire assemblage became painfully apparent.

The strong circumstantial evidence in this case secured speedy indictment and promised probable conviction until the autopsy was reached, when the tide of public sentiment, tinged with more or less prejudice, at once disheartened the able prosecuting attorney in its abrupt sway in the direction of the defense. In the summing up of the case, the autopsy was again pictured to the jury, by the defense, in as illusive and ridiculous terms as the attorney was able to command. The result of the trial, of course, was an acquittal of the accused. Subsequent inquiry revealed the facts that one of the surgeons secured a new, finely cut, cabinet saw, which was used at this autopsy, and that the calvarium was pried from the head by aid of the handle of the fire shovel, and that the attachments of the duramater to the calvarium withdrew the brain from its seat in the act of elevating the skull, and that, in reality, the details of the autopsy were, in efficiency, unquestionable.

CASE III.—The People *vs.* Blank, indicted for infanticide, with a plea of insanity. At a session of the commission, which was organized for the purpose of determining the mental condition of the accused, Dr. C. D., of a neighboring county, was produced by the defense as an expert medical witness. On his direct examination the doctor proved himself the medical superintendent of his county hospital, which included a department for the insane. The doctor further qualified as an expert on insanity in the affirmation that he had familiarized himself with the various popular works on the subject. The cross-examination of this expert revealed the fact that the hospital, or retreat, in question was in reality an ordinary county poorhouse. Also, that the expert medical superintendent became the professional attaché of the place by virtue of an appointment and a contract to render such medical service as the inmates from time to time required, and that his salary for such service amounted to about twenty-five cents per day during the year. As a further humiliation to the witness, the district attorney assailed the doctor's knowledge of insanity, in substance, in about the following manner:

"Doctor, you state that you are somewhat familiar with the popular works on insanity?"

"Yes, sir; I have read most of them."

"Doctor, are you familiar with Hammond on the diseases of the brain and nervous system?"

"Yes, sir; I have read the work."

"Have you ever read Steincamp on the diseases of the spinal cord?"

"Yes, sir; I have read some of the work."

"Are you familiar with Bourgero's work on insanity?"

"Yes, sir; I am somewhat familiar with it."

"Did you ever study Larabee on acute diseases of the brain?"

"Yes; I have read it some."

"Doctor, have you ever read McIntyre on puerperal insanity?"

"Yes, sir; I have seen the work and read somewhat of it."

"You consider him a good authority, do you not?"

"Well, yes; pretty good."

"Doctor, have you this work in your library?"

"I think I have, if it has not been borrowed from me, or lost in some way."

"Very well, doctor, that is all."

When the attorney, by way of rebuttal, placed Dr. E. F. upon the stand, and by him proved that all of the above-named authors (save one) were purely fictitious, and that no such works on medical literature ever existed edited by Steincamp, Bourgero, Larabee, McIntyre, etc., which the expert had testified of his familiarity therewith, the extreme humiliation of the witness, and the chagrin of the representatives of the defense in the action, can be better imagined than described.

CASE IV.—G. H. *vs.* the town of Blank. A civil action in the Supreme Court, to recover for fractures of both bones of the right leg, at its lower third, the consequence of the falling in of an unsafe bridge, while plaintiff was crossing in the seat of a heavily loaded vehicle.

In this case the writer appeared as a witness for the plaintiff, having rendered surgical assistance in the care of the fractured limb, and we, therefore, submit a portion of the court proceedings illustrative of certain antagonisms between the professions in trials before the benches of judges possessing only Homœopathic stores of surgical knowledge.

In establishing before the jury the character of the injury, etc., the plaintiff's attorney drew forth the information that the result of the surgical care of the limb, though not perfect, was considered a good average convalescence. This reply drew from the bench the inquiry:

"What, are not the bones now in perfect apposition?"

The witness replied: "No, sir; they are not."

In his address to the jury, this district judge of the Supreme Court of the State of New York, charged in substance, that, though Dr. C. had sworn that the bones were not in perfect apposition, it really required no more mechanical ingenuity and skill to replace and keep those broken bones in place than it would to splice or mend a broken pole or thill to one of their wagons.

Another portion of the examination of this witness included about the following queries from the same bench:

"Doctor, what were your services worth in this case?"

"My bill for services, including livery hire and the supplies which I furnished—"

"What were your *services* worth?"

"Do you inquire the value of my services, exclusive of supplies?"

"No, no; what were your *services* worth?"

"Do you ask as to the value of my services to the patient?"

"Yes, sir.

"My services rendered the plaintiff, in my judgment, were worth $50,000, for they doubtlessly saved his life."

"No, no, no, doctor; I fear that the jury will give but little credence to your testimony; what were your services worth?"

"Sir, I am unable to answer that question in any other light than heretofore attempted."

"Very well, then, we will pass the question."

The desired information was subsequently developed by this query of the plaintiff's attorney:

"Doctor, what was the amount of your bill against

the plaintiff, which was paid to you by him, for your entire care of his case?"

The above discrepancy was but the natural result of the employment, on the part of the judge, of the term services in that unlicensed, broad sense, apparently covering, in his opinion, the precise scope in *our* profession (where the expense of livery hire, apparatus, supplies, etc., must be added to the labor), as in his calling where simply the brain and vocal organs are brought into action in developing results.

In passing from the clinical histories to the remedies for the contingencies, described in the above situations, we beg to submit such suggestions as have occurred to us, as being the most effectual methods of protection to the physician's "stock in trade," his local reputation.

First and foremost, allow us to urge with all possible human emphasis, thorough acquaintance with all of the medical and surgical points obtainable in the case, and then, from one or two of the latest accepted medical authorities, thoroughly qualify upon the probable material questions in the issue. Adhere strictly to the one or two authorities which have been studied, and disclaim any familiarity with all others.

Get up the main anatomical features, and never hesitate to admit that you have forgotten such portions of the study as are not readily recalled; at the same time, remind the audience and jury by a suffix to the reply, that even attorneys are forced to consult their authorities at times.

Secure the favor of the entire court by manifesting a spirit of absolute fairness to both parties in the action, avoiding all prejudice and indication of personal interest in the result of the trial. It is the fair testimony that weighs with a jury, and no reputable attorney will dare to hazard his case in attacking a fair witness.

Avoid technicalities, unless fully interpreted in common English when employed. Witnesses who persist in the use of technical terms, not only displease their hearers, but expose themselves to the charge of being airy or vain.

Weigh carefully the purport of every question from the cross-examiner, and reply with *confidence*, for the witness who habitually hesitates becomes easy prey to the attorneys of the opposition.

Never reply to questions that are so framed as to be doubly construed, but rather prove such fact if any uncertainty exists by demanding a repetition of the question, and then inquiring as to which construction was intended. The compound question is an especial favorite of the shrewd cross-examiner who invariably insists upon replies thereto in the monosyllables of yes or no. These questions are so constructed as to render the reply "yes" proper to a portion, and "no" to the balance of the subject-matter. When thus confronted, the writer habitually conforms to the request of the attorney for replies in monosyllables, and embodies in each of such replies both of the terms "yes" and "no." And when the attorney demands the analysis of this extraordinary response, we charge his question with compound or complex construction and ask for its analysis before replying further.

Prefix replies to mythical and misleading questions with the statement, that in correctly answering such questions an explanation is necessary, and then insist upon your right to render such explanation as will leave the matter perfectly clear, even though you appeal to the court for the privilege.

Avoid the habit of volunteering information tending to effect the issue, beyond that included in the question asked.

Adopt and observe the rule, never to enter the witness-box until you have stationed at the side of your attorney, a medical colleague, who is fully competent to suggest in your re-direct examination such interrogatories as may be necessary to insure the placing of your testimony in its fair and proper light before the court and assemblage.

In the autopsy room permit the presence of none, excepting those who are legally entitled to remain, particularly, if common tools are to be employed in the labor. The meager autopsy outfits of many physicians do not include the saw and chisel, therefore, those operators are compelled to meet emergencies with such means as may be at hand, and while their results may be exceptionally reliable and complete, even though the wood saw and fire shovel are pressed into service, yet a sweeping publication of the fact, before the uninitiated populace, cannot but depreciate the value of the service, as well as the reputation of the operators as skilled and qualified surgeons.

This feeble contribution would be conspicuously incomplete without a word as to the common obstacle to our more rapid progression in the estimation of a thinking public as a class of scientific men, namely, the deplorable conduct of certain physicians, who become ready tools in the hands of unscrupulous attorneys in the perversion of real facts and accepted theories, to their desired dishonest ends. Many physicians hold themselves in readiness for an alliance to that party, in a legal issue, which promises the greater compensation, and when so allied, strip our profession of its hard-earned embellishments by the moulding of well-established truths into theories adaptable to the interests of their employers. Is it then surprising that the integrity of a medical witness, and the sincerity of his testimony, is so frequently questioned in the jury room, when members of the same profession publicly, and under oaths of honor, antagonize one another to the broadest possible expanse upon questions, which to laymen, appear as indisputable facts?

Let us hope that in the future deliberations of this honorable body, while enriching our qualifications for the duties of the table and bedside, such considerations of the functions of the physician as an expert witness will be entertained, as will eventually elevate our noble calling to its merited pinnacle of integrity.

SEVERAL attempts have been made to construct an effective electrical tricycle, and a machine has now been constructed which appears to possess points that entitle it to be considered a practical machine. It is similar in construction to the ordinary tricycle except that it is much larger, and is said to attain a speed of twenty miles an hour. The motive power is a storage battery placed under the seat. This battery will run the vehicle over one hundred and twenty miles at one charge, at a cost of fifty cents.

THE telephone has for some time been used in various hospitals as a means of communication between patients who were suffering from infectious diseases and their visiting friends. It is now proposed that the phonograph be brought into the hospital for the entertainment of the patients, and it is argued that a phonograph in a ward, with a large and constantly renewed supply of cylinders, would be a source of amusement and pleasure to the patients which would admirably supplement the hospital treatment.

The Polyclinic.

PHILADELPHIA HOSPITAL.

Reported by S. T. Buck, M D.

IN patients who have hemorrhoids and who suffer very much, the pain and tenesmus is often due, not to the hemorrhoids, but to rectal ulceration, which should in all cases be carefully looked for.

ŒDEMA OF SCROTUM.

Patient was a man admitted to Philadelphia Hospital suffering with a gonorrhœal bubo, which was of unusual size, and extended over the external abdominal ring. The scrotum was about the size of a fœtal head, not inflamed and pitting on pressure. The swelling seemed due to the pressure of the suppurating glands interfering with the circulation. The dorsal decubitus and incision of the bubo promptly relieved the œdema.

Two cases recently observed of undoubtedly *syphilitic eruption* (secondary) experienced itching, a phase which is not often met with.

AN EXCELLENT FEVER MIXTURE.

℞.—Tincturæ aconiti ..... ♏xx.
Spt. ætheris nitrosi..... f℥iss.
Liq. ammon. acet. .....q. s. ad. f℥iv.
M.—Sig. f℥ij, every two hours.

For *old and indolent ulcers*, washing daily with a solution of carbolic acid, 1-20, gives excellent results. It is antiseptic and a powerful stimulant, producing abundant granulations.

A great improvement on the standard treatment of *pediculosis pubis* with ung. hydrargyrum consists in the application to the parts of a tincture of larkspur, applying with a sponge and mopping thoroughly. One, or at most two, applications is sufficient. Its advantage consists in the fact that it is cleanly and non-poisonous.—*Porter.*

In a case of *acute lobar pneumonia* the pill febricide—

℞.—Quininæ sulph..... gr. ij.
Antifebrin..... gr. ij.
Cocainæ chloaid..... gr. ⅙

—was given with excellent results, the skin becoming moist and the temperature kept within bounds. For a short time the pill was withheld, with the result of the temperature rising, the skin becoming hot and dry, and all the symptoms becoming worse. Upon again administering the medicine the patient improved and the crisis occurred on the sixth day.

In a case of *acute pharyngitis* in a person subject to frequent attacks of this disease, the pillars of the pharynx and the posterior wall were touched with a solution of nitrate of silver (60 gr. to the f℥j) followed by a gargle of

℞.—Potassi chloratis..... ℥ss.
Ext. rhus glab. fld ..... ℥ss.
Aquæ .....q. s. ad. f℥viij.
M.—Sig.

This treatment was followed by a complete cessation of the symptoms within twenty-four hours.

In indolent ulcers and eruptions, particularly those of syphilitic character, the ointment of ammoniated mercury makes an excellent application. The best results were obtained with those ointments made with an animal fat instead of petrolatum, cosmoline and similar preparations.

In a case of *tertiary syphilis*, in which there was extensive destruction of tissue in the mouth and pharynx, from the formation and breaking down of gummas, and in which apnœa was threatened from excessive secretion, the inhalation of the steam from a mixture of equal parts of vinegar and water gave instant relief. As there seemed to be some hysterical element in the case the following was given with marked success:

℞.—Potassi bromidi..... ℥ij. ℈ij.
Morphinæ sulphatis..... gr. ⅔.
Tinct. valerianæ ammon..... f℥j.
Syr. zingiberis,
Aquæ.....āā q. s. ad. f℥ij.
M.—Sig. f℥ij every two hours.

A case of bubo recently treated was traced to the pressure and friction of an ill-fitting and worn-out hernia truss.

MEDICO-CHIRURGICAL HOSPITAL.

ANTISEPTIC TREATMENT OF TYPHOID FEVER.

OF the importance of disinfecting the alimentary canal in typhoid fever, there can be no question. The points to be accomplished by the antiseptic treatment are well known. Of the many remedies employed, the most satisfactory are the sulphocarbolate of zinc (so highly recommended by Prof. Waugh), or the sub-iodide of bismuth, in 5-grain doses, every three hours.—*Godfrey.*

Tincture of strophanthus, in 10-drop doses, quickly relieves the asthmatic attacks occurring in Bright's disease.—*Godfrey.*

PRURITUS VULVÆ.

Pruritus vulvæ results, generally, either from a discharge from the uterus and vagina, from diabetes or from structural lesion of the vulva. Being an effect, the cause should be ascertained. For the local treatment, applications of a solution of bichloride of mercury will prove the most serviceable.—*Godfrey.*

JEFFERSON MEDICAL COLLEGE.

IN a case of acute tonsillitis, treated at the clinic at Jefferson College Hospital, the following treatment was given, viz.:

Locally the patient was ordered to use a gargle of quaiac and hot water alternately; and internally—

℞.—Ext. jaborandi fl..... ♏x.
Quininæ sulph..... gr. iij.
M.—S. ter dii.

Dr. Stelwagon advised the following lotion in a case of chronic ulcer:

℞.—Acid. boracici ..... f℥ij.
Acid. carbolici..... f℥ss.
Glycerini ..... f℥iss.
Alcoholis ..... q. s. f℥viij.
M.—S. Apply to the affected part.

A clinician, in speaking to the class of a case of ataxic paraplegia, said that the power of resistance was rendered so weak that anything lowering the vital forces, *e. g.*, influenza or pneumonia, however slight, would prove fatal. He gave the following in regard to treatment: Arsenic, nux vomica, combined with electricity and a nutritious diet.

At a recent hospital clinic the following prescription was given in a case of acute rheumatism:

℞.—Potassii iodidi..... gr. v.
Potassii acetat..... gr. x.
Vin. colchici radicis..... gtt.x.
Syr. zingiberis,
Aquæ .....q. s. āā f℥j.
M.—S. ter die.

The Times and Register

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GO SLOW.

THE prevalence and intensity of the epidemic is extraordinary. Never before has any medical fad taken so profound a hold upon the public. From every quarter patients are rising from their death-beds, and, with the consumptive's never-dying hope, hastening to the new Mecca. By thousands they crowd the hotels of Berlin, struggling for the privilege of being treated at any price. Hundreds of physicians have left their work and are gone on the same profitless journey. The vast majority of the latter could accomplish more by quietly staying at home and attending to their business. At Berlin, they cannot obtain speech with Koch; nor can the lymph be had for love or money, entreaty or influence. Still, as the journey is in many instances simply an advertising dodge, and it would never do to go so far and come home without any lymph, it is greatly to be feared that the law of demand and supply holds good, as usual. Lymph at any price is an imperative necessity; money is to be had for lymph; lymph is to be had for money. It is good to be the first in the field; the early fruit brings the best prices; and it is better to be at sea in a rudderless boat than to be lymphless when the patients are thronging the halls of our rivals. So that we are not surprised to hear of lymph whose pedigree cannot be traced back to Koch, except with the dubious qualitative "said to be;" and of doctors who left Berlin in despair at their inability to obtain any lymph, but landed here with enough to inoculate thousands.

Meanwhile, what is the attitude of the medical schools and journals? As the leaders of medical thought, the proper guardians of the public against the heresies and false doctrines that arise so often, we have a right to expect their influence to be exerted in the right direction. And few can doubt what this is. To moderate undue excitement; to point out the limitations of the new methods; to keep the unfortunates at home who have nothing to expect from the lymph. Instead of that, they appear to be breaking their necks in a mad race to see who can do most to enhance the excitement. Special bulletins, long lists of patients treated, newspaper articles, illustrated with cuts representing the illustrious professors performing the operation on lovely and interesting patients: all helps on the good work. The only question is: Who can get the most advertising out of it? And in this laudable emulation, the eminent medical leaders and the notorious McCoy and Wildman meet on the same track and appear to be running neck and neck. Nevertheless, there is not a doubt but that this course will pay.

Let us look back a few short years. The Bergeon gas treatment was introduced; and several men who stood high in the ranks of the profession lent the sanction of their names to it. The same scenes were enacted; money was poured out like water; hope ran high; the eminent men made money by handsful. The conservative men who were not carried away by the enthusiasm of the moment proved to be right, and were badly left. The enthusiasts were wrong, but were made rich. Now, the same farce is being enacted over again; and we suppose it will so continue to the end of time.

For all this wretched business Robert Koch is not responsible. Nothing can be more clearly put than the limitations he has made to the use of his remedy. The evil lies with those who persist in making of it what Koch persistently declares it is not, *i. e.*, a remedy for consumption *per se*. While the medical journals and colleges have not directly affirmed this, they have done much harm in stimulating the popular interest, by their bulletins, etc.

The simple fact is that Koch has announced the discovery of a substance whose powers he limits to the cure of lupus, a disease not very common in America; of external or surgical tuberculosis, and possibly of pulmonary tuberculosis in its earliest stages. He distinctly states that advanced cases of tubercular phthisis have nothing to hope for from this remedy. The dangers of the remedial agent, and the permanency of the cure, are not yet satisfactorily studied out; but the rapidly multiplying deaths reported, apparently due directly to the lymph; and the reports of reappearance of lupus in cases pronounced cured, show that even in the most carefully selected subjects there is neither safety in use, nor certainty of cure. The limited time which has elapsed since the discovery of the remedy, makes it impossible to say as yet that any complete or permanent cure has been obtained. And yet on this slender foundation what a fairy palace of hope has arisen!

The interest in Koch's discovery lies mainly in the future. His remedy, as yet, amounts to but very little, if it does all he believes. But it opens a door for the future, through which vast possibilities may be seen. He, and others trained in his scientific methods of investigation, may make this discovery the beginning of a new era in medicine. Or, like Jenner's discovery, it may lie fallow for a century or two, till the general intelligence of mankind has advanced to a point where further progress becomes possible.

A DISAVOWAL.

WE print in another column a letter from the editor of the *Journal of the American Medical Association*, in which he disavows the attack upon Surgeon-General Hamilton which recently appeared in the *North American Practitioner*, the organ of the firm of Charles Truax & Co., of Chicago. Our readers will, of course, understand that the article recently appearing in our columns upon this matter was based upon something more than suspicion. But one cannot be held responsible for the acts of even his most intimate friends; and it is with a feeling of relief that we print Dr. Hollister's prompt disavowal.

The attack upon Dr. Hamilton was as unjust as it was malicious. No member of our profession in America has done as much for the public weal as has the Surgeon-General of the Marine Hospital Service. In this capacity he has stood between the country and the invasions of epidemic diseases, with their untold possibilities of evil. His good work during the yellow fever visitation in Florida would hardly need to be recalled, were it not that men's minds are not tenacious of benefits received; and nine-tenths of the public never knew how well their interests were then cared for. Not content with showing how thoroughly efficient was the organization of his department in that emergency, Dr. Hamilton set the example of pluck to his colleagues by placing himself in the heart of the dangerous district.

The splendid organizing ability of Dr. Hamilton was also shown in the Ninth International Medical Congress, in a way that is best appreciated by those who had the opportunity of comparing the management with that of the Berlin Congress, where the Secretary-General's incapacity has prompted the benevolent suggestion that he was probably insane. As to Dr. Hamilton's management of the Journal, during the short time he controlled it the standard was assuredly equal to that of his predecessors, to say the least. He is now out of the management, charged with duties of infinitely greater importance, and occupies a position in which he should have the moral support of the united profession; that the public welfare may be subserved, and because his work has shown him to be deserving of such support.

Those whose experience has been limited to civil life often fail to comprehend the importance of public support to men in responsible official positions. Just such malevolent attacks as the one under discussion, made by irresponsible persons, or even anonymously, may prove a serious matter to a public official, and throw great obstacles in the way of the discharge of his official duties. Captain King has finely illustrated this in his last book, "An Army Portia;" a book which every one should read who feels tempted to find fault with a public officer without really knowing anything about the circumstances.

OUR impression as to the spurious nature of the lymph now being used in this country is confirmed by the fact that the characteristic reaction described by Koch has not been manifested. Somebody in Berlin is perpetrating an outrageous swindle. Lymph should not be trusted unless it comes directly from the Government officials. As to the dangerous qualities of the lymph there is, however, no question; the death of Dr. Jacobi's patient demonstrating the activity of the agent employed. This case, of tubercular meningitis, was one in which, according to Laplace's report, the use of the lymph was unjustifiable.

All the lymph sent out by Libbertz is put up in blue or brown vials, containing one drachm each. These are imbedded in blocks of wood about three inches square. The manufacture is supervised by Koch's son-in-law, and its sale is controlled by Libbertz, so closely that even Koch himself was unable to secure a vial. Up to December 12, but sixty two vials had been sent out of Germany; but two of which came to America. The above information is from a source whose reliability we fully endorse.

Annotations.

THE following cable dispatch appears in *The American Journal of the American Sciences* for January; sent by Prof. Ernest Laplace, of the Medico-Chirurgical College, a private letter from whom appears in another column. Dr. Laplace's intimate personal relations with Prof. Koch, and his thorough training in bacteriology under Koch and Pasteur, render this by far the most important report that has yet been made by any of the Americans visiting Berlin:

"So far as we can learn, the material which is used by injection for the cure of tuberculous disease is itself a product of the action of the tubercle bacillus upon a culture medium, the composition of which has not yet been made known, under conditions which are also still unrevealed. It probably contains, in addition to the *toxine* or *toxines* to which its activity is due, a minute quantity of cyanide of gold, as a protective against possible contamination with the bacilli themselves. 'Koch's lymph,' as it is called, is prepared for use in the following manner: One gramme of the lymph, with 9 grammes of a 2 per cent. carbolic acid solution, constitutes the first (10 per cent.) dilution, from which a second (1 per cent.) dilution is made in a similar manner—9 grammes of carbolized solution being added to 1 gramme of the diluted lymph; and from this again a third ($\frac{1}{10}$ per cent.) dilution is made—1 gramme of twice-diluted lymph to 9 grammes of carbolized solution. This third dilution, then, contains 1 part of the lymph in 1,000 parts of the preparation, so that a dose of 1 gramme of fluid contains 1 milligramme of the lymph. As a rule, the patient is subjected first to this dose. Should no effect be produced by repeated doses, the amount is increased to a dose not exceeding 6 centigrammes. Koch always makes use of a freshly-prepared solution.

"Introduced into the stomach the remedy has no effect; it is, therefore, injected subcutaneously by means of the small syringe suggested by Koch for bacteriological work; the site of injection is the skin of the back between the shoulder-blades and the lumbar region, or, more recently, in the gluteal region. From three to eight hours after the injection, the effects begin to be manifested. They vary greatly in different subjects, and are said not to occur at all unless tuberculosis is present. The presence or absence of 'reaction,' then, is assumed to be a diagnostic sign, and this test was made use of by Gerhardt and

von Bergmann to discriminate between cancer and tuberculosis of the larynx; and more recently between tuberculosis and syphilis of the palate. Upon the same principle, a patient who no longer manifests reaction, after receiving the maximum dose of the remedy, is assumed to be cured, though, for the present, Dr. Koch and his assistants very wisely speak of provisional cure only, as sufficient time has not yet elapsed to test its permanency.

"Among the provisional cures are cases of lupus, of tuberculosis of the larynx, of incipient phthisis, and of white swelling in children. Children stand the treatment well if care be taken not to begin with too large a dose.

"Reaction is manifested both by local and constitutional symptoms: the latter comprise pain in the limbs, fever, sometimes chill, nausea, and vomiting; in phthisical cases cough and dyspnœa; and in a few cases sensorial disturbances, such as somnolence and delirium. The fever may rise as high as 40° or 41° C., in which event great cardiac depression, and even collapse, are likely to occur. Sometimes the temperature suddenly falls to 36° or even 35.5° C. During the next day, however, there is a slight elevation of temperature to 37.8° or 39° C., called by Koch the 'secondary reaction.' The temperature again sinks below normal when the second stronger injection is given, which is followed by high fever, as before.

"The local manifestations consist in swelling and discoloration of the affected tissues, which finally necrose, and are either spontaneously expelled, or must be removed by surgical means.

"In cases of lupus, the local reactions, which are easily observed, have been very striking. The affected tissues become very red and swollen, surrounded by a raised border sharply defined, usually dark-red in color, in some cases whitish, and varying from the breadth of a few millimeters to that of a finger.

"After the subsidence of the fever, the swelling of the lupus-tissue gradually decreases and disappears. The lupus-spots are covered by a soft deposit which desiccates into a crust; the crusts falling off, clean, red cicatrices are left. Of one case, Feilchenfeld says that the pathological tissue seemed to have been removed as with a punch.

"If local reaction is observed in sites previously thought to be healthy, it is held to indicate the presence of unsuspected tuberculous disease. In many cases of lupus this has been a marked feature of the progress of the case toward recovery.

"As already stated, the symptoms of the reaction vary greatly in different individuals and in different forms of tuberculous disease.

"A slight punctiform rash sometimes appears over the whole of the body. In some cases a slight amount of albuminuria has been noted.

"The physiological disturbance from a given dose is greatest in acute cases. As recovery progresses, the dose necessary to produce reaction must be progressively increased, until finally, when the largest dose—6 centigrammes—fails to produce reaction, cure is assumed to be complete. Cases of surgical tuberculosis begin to react only under a dose of 5 milligrammes or more. Until now the injections have been administered on alternate days, so that the effects might be better studied; but Koch maintains that the more rapid and intense the treatment, the more rapid and safe must be the cure, and the intervals between the injections will probably be diminished.

"The injections must be supplemented by the best possible hygiene and measures calculated to promote nutrition generally. Especially is this necessary in cases of suppurative joint-disease. In these cases, too, the 'cure' progresses slowly, and surgical interference is requisite to complete it.

"The action of the lymph seems to be the destruction of tuberculous tissue, and the constitutional disturbances seem to be correlated with this process. The more extensive the lesions the more pronounced are the disturbances; and hence the smaller the initial dose which will excite reaction, but the greater number of repetitions of the injections, and the larger the final dose required, before the reaction ceases to be manifested. Extreme caution is evidently necessary to avoid dangerous constitutional reaction in cases of widely-disseminated tuberculosis; and where the locations of the lesions are such that the local reaction might jeopardize life, the treatment is contra-indicated. Thus, at least three conditions may be enumerated in which recourse to the method must be pronounced unjustifiable:

"1. Advanced pulmonary tuberculosis.

"2. Severe laryngeal tuberculosis.

"3. Tuberculosis of the brain or meninges.

"But even in apparently mild cases there may lurk unsuspected dangers. A man who had for a short time exhibited symptoms of pulmonary tuberculosis, received in three days two injections, the first of 2 milligrammes, and the second of 3 milligrammes, of the lymph. Reaction was excessive, and five days later he died.

"Slight cavities were found at one apex, both lungs were hepatized, and were infiltrated throughout with miliary tubercles. It is conjectured that the hepatization was the effect of the local reactions at the numerous foci offered by the disseminated miliary tubercles: this theory assumes the previous existence of these latter, but who shall say that they were not produced by the injections? The time is not too short to have permitted this. At all events, death seems to have been directly due to the treatment.

"In a private conversation held with Koch recently, he said that though the Government now reserves the right of preparing the lymph, in a short while all applicants would be supplied. It is my impression that Koch desires the method to be firmly established before any doubts could be cast upon it by impure or otherwise imperfect lymph, which source of danger is now eliminated by the stand taken by the German Government. At present it is impossible to procure the article, and more than five thousand applications have already been filed for it. Hundreds of doctors from the world over are returning home satisfied with the results demonstrated, but with only the hope of receiving the lymph at some future time."

IMMATURE CATARACT.

DR. RICHARD KALISH, in an article on The Absorption of Immature Cataract by Manipulation Conjoined with Instillation, thus sums up his conclusions, after having cited various cases:

My conclusions are: 1. Further investigations are necessary before a decided opinion can be expressed as to the result of this treatment in mature cataract. 2. Immature, uncomplicated cataract can be benefited to the reacquisition of reading power, that is, to good, useful vision. 3. Incipient cataracts and those which have but passed into a state of immaturity can be entirely absorbed. 4. This being so, the sooner a cataract comes under treatment the better the result obtained. 5. The effect produced by my method of manipulation, conjoined with instillation, is permanent.—*Medical Record.*

A PHYSIOLOGICAL THEORY.

THE human body is not a kingdom where one queen soul sits enthroned in perfect solitude, but a colony of psychic individualities, which are absolutely distinct, but are all subordinate to a chief, the cerebral Ego, which so far as they are concerned is a *primus inter pares.* This thought of physiological and psychic plurality is confirmed by our internal experience. We know that at every moment we are performing mental acts without being aware of them, we are unconscious of our own subjective state. Now, unconscious subjectivity, unconscious sensation, for example, is a contradiction in terms; but the contradiction is explained, when I remember that though a certain sensation of mine may not be experienced by me, that is, by the Ego which is the psychic centre of my whole being, it is felt by one of my other Egos, by the psychic principle, which presides over that unit of my organism which is the seat of the sensation. This theory of human *polyzoism* and *polypsychism* will hereafter, it may be added, give birth to new doctrines, psychological, moral, and eschatological.

—Durand, *Literary Digest.*

MARRIAGE AS A REMEDY.

A VERY sensible editorial on the subject in the *Journal of the American Medical Association*, says:

There is no restriction of marriage to-day except in the pronounced idiotic and raving maniac. No one is so diseased or deformed, or crippled, or defective in mind or morals, but may marry and become a parent of degenerate, helpless children, as far as the law is concerned. While this is a sad reflection on the intelligence and civilization of to-day, it reveals a field of reform which medical men of all others should occupy at once. All medical writers are unanimous in condemning marriages between defective and disordered persons, and yet public sentiment would not sustain to-day any special laws of restriction. Obviously this is one of the great fields of prevention of disease, that both medical men and legislators will occupy in the near future.

Never counsel marriage as a remedy or means of relief for neurotics or persons of defective heredity. Elevate and dignify marriage as a means to raise the race in every way from its childhood age. Although *Utopia* is far away, there are evident signs of progress towards it, and when marriage becomes a subject of strict legislation, a long stride forward will be taken.

ANTI-VIVISECTION AND THE ROYAL SOCIETY.

THERE was a significant outbreak of feeling at the Royal Society, when Dr. Hopkinson, who had received one of the medals of the society for his researches in electricity and magnetism, alluded to the subject of vivisection. He was returning thanks for Dr. Ferrier and the other medalists. Dr. Ferrier had well won the medal for his researches into the localization of brain function, with a view to surgical and therapeutic purposes. Dr. Hopkinson, alluding to the splendid work of Pasteur and Koch, said that Dr. Ferrier's researches showed that, with anything like similar conditions, the discoveries of Pasteur and Kock would be equaled by men in our own country; but in this respect we are hindered. We do not live "in a free country." If a few more great discoveries have to be studied, as a favor, in Paris or in Berlin, and our *savants* have to be sent there for the purpose, Englishmen will be apt to doubt whether they are acting kindly by man or beast in tying the hands of their best investigators, who have done more to mitigate suffering than the Society for the Prevention of Cruelty to Animals itself. Dr. Hopkinson said that had he been hampered in his experiments as physiologists and physicians are, he could never have made the discoveries which Sir William Thomson says affect the whole range of physicial science.—*Lancet.*

THE PRESENT STATUS OF THE TUBERCULOSIS QUESTION.

WRITING to the *St. Louis Courier of Medicine* on this question, Dr. L. Bremer says, among many other good things;

When we assume that the tubercular predisposition and scrofulosis denote only a constitutional anomaly which favors the invasion of tubercle bacillus, and if, in addition to this, we adopt Metschnikoff's theory, according to which in bodies built after the type called the phthisical habitus, there is an inherent weakness of the leucocytes to destroy, *i. e.*, to digest the bacteria productive of phthisis, it seems intellible enough that many escape the disease that are placed under the same morbific surroundings, to which others succumb. No theory, indeed, is more captivating and appeals more strongly to our understanding, than this theory of phagocytism introduced into the pathogenesis of infectious disease by the Russian investigator. Even those not grounded in biology and pathology will find it quite easy of comprehension that the white blood corpuscles resembling so closely in all respects the amœba, should, like this unicellular animal, embrace, *i. e.*, eat, smaller organisms than itself and digest them. The foreign invaders, the bacteria, are hunted up as it were, by the soldiers, the white blood corpuscles swarming throughout the animal's organism, swallowing every bacterium they may come in contact with. On the aggressiveness and digestive powers of the leucocytes, the fate of the whole organism depends, in case of such inimical invasion. If they triumph in the struggle with the enemy, the host is saved, the intruders vanquished, *i. e.*, disease is prevented. In other words, immunity from tubercular disease is due to the ability of the leucocytes to attack, swallow and digest the otherwise pathogenic bacteria.

HEALTH OF AMERICAN GIRLS.

THERE is no question as to the telling effect of nerve wear on our women, and in my opinion the essential causative factor to which the ill-health of the American girl must be referred is functional neglect (or ignoring of her functions) and over-brain work; over-exertion of the nerves and emotions, with imperfect development of the muscular system, an inharmonious development and exertion, physical, mental and moral.

The most persistent period of nerve and vascular excitement is that of developing womanhood, when for months the system is in a period of unusual activity, and consequently the highest susceptibility, which does not cease as speedily as we see its outward tokens disappear. Then follow the cyclical changes of mature life, varied by the higher waves of active reproduction.

The functional wave slowly rises until it reaches flood height, with an increase of nerve activity and vascular tension, accompanied by a rise of temper-

ature, as Mary Putnam Jacobi tells us, of from one-tenth to eight-tenths of a degree F., and it is during the decline of this wave that the depletion takes place, when the distended vessels rupture and nature relieves herself, the temperature steadily sinking, but not reaching the normal until after the cessation of all external symptoms.

In considering the initial causes of disease in their effect upon woman, we must analyze not alone this one function, but we must consider the entire being of woman, that we may apply the proper standard, and that we may not measure her capacity for labor, mental or physical, or her powers of endurance, with those of man, woman—the woman of our civilization—cannot be properly compared with man; she is differently organized, differences of many kinds exist—the most obvious, of course external and anatomical. Form and shape differ; her organism is a different one; individual organs are more vascular and more nervy; she is more emotional, more readily exhausted, less able to bear continuous and prolonged application; more blood is produced, the circulation is more active, so also the respiration. The period of puberty is shorter and more marked, and the last stages of development are reached at an earlier period in life.

Engelmann, *Medical Mirror.*

HEREDITY AND RESPONSIBILITY.

JUST as the theories of evolution and spontaneous generation threatened at one time to sap the foundations of religious belief, so at present there is a growing disposition to strain the logic of heredity, and thereby discount the sum of human responsibility. Man, it is argued, is an organization, the resultant of the organization of his ancestors; that organization rules him by inexorable laws; if it has been gouty, he must have the gout; if it has been tainted with insanity, he must be a lunatic; if it has been vitiated by a passion for gambling, he must be a gambler. He has no escape from the "tyranny of his organization" This is only partially true. The incapacity of insane minds to distinguish between right and wrong; the inability to resist temptation which we ourselves at times experience are to some extent inherited weaknesses, but the blame attaching to them is not entirely due to our ancestry; we are more or less capable of resisting them, and by exercising our power of resistance we may subdue them. Heredity in a word is a stern reality, but not an absolute tyrant. All sane men and sane women are to some degree morally responsible.

That deadly form of fatalism, the belief that the tyranny of organization cannot be evaded, has often a powerful influence in precipitating insanity where there is a hereditary tendency to it; but that it is possible to resist and eventually conquer the tendency may be inferred from the theory of evolution itself; for it is a part of that theory that favorable variations are naturally enduring, while variations that are unfavorable are prone to become extinct, from which it follows that living a life in harmony with the laws of physiology consumption, gout and insanity may through time be effectually stamped out.

The moral which may be deduced from these premises is that the destiny of each one of us is ruled by his own individual resolve and effort. As an incentive to such effort we should bear in mind that posterity will some day speak of us as we do of our ancestry, and that it may in turn disclaim responsibility for the sins of the fathers, and accuse us of propagating brain at the expense of muscle, of breeding idiocy, insanity and nervous diseases by living at too high pressure, and of overstraining young brains to make them prodigies of learning; we should, in short, reflect upon the everlasting truth that "no man liveth unto himself."—*Literary Digest.*

THE TREATMENT OF EPILEPSY BY DIETING.

CERTAIN drugs act upon the nervous centres so as to control to some extent this tendency to discharge. How is this done? The answer is twofold. First, these drugs may act so as to fix the nitrogen compounds, and render them more stable, less likely to part within nitrogen, less ready to discharge. Second, these drugs may act by preventing the formation of these unstable nitrogen compounds. This, I believe, is the real explanation. Under the use of the bromides the molecules take in nitrogen less rapidly, and consequently do not become so unstable or explosive.

If this is the case, can anything be done towards the reduction of the share of nitrogen by feeding the patient after some fixed plan? To this I answer, yes. Take young dogs and cats, and feed them too freely upon meat, and you can make them—especially the dogs—very subject to fits, similar to ordinary epilepsy in the human subject. Acting on this line, I have been in the habit of making my epileptics become strict vegetarians. Eggs, lean meat, red fish flesh, cheese, peas, beans, and all nitrogenous articles are cast off. The amount of nitrogen entering the system is reduced by this means to the lowest possible quantity. Under this dietary it is much more difficult for the nervous system to build up these unstable molecules, full of nitrogen, ever ready to fall into new combinations, and produce discharge of energy, while these changes are being effected. By persistently reducing the daily consumption of nitrogen there is not such a free formation of the catabolic molecules, the discharge of which is necessary for the production of the convulsive seizures of true epilepsy. This method of treating these patients has been of very great value in my hands. It would seem, however, that the restitution of the diet to an almost non-nitrogenous vegetable one is of most use in those extremely catabolic conditions met with in the status epilepticus. It is in this variety of the disease that we have such poor results from the administration of drugs. I have treated some epileptics on the above food plan and without drugs, the health being better than when taking the bromides, without the restitution in diet. I would not go the length of saying that epilepsy is a food diathesis, yet I am strongly inclined to think that it tends this way. Not all those who use meats and liquors to excess become gouty; nevertheless we do not doubt that gout is a food diathesis thus produced.

With our epileptics there is an extremely unstable condition of the nervous molecules. This unstable state can be greatly lessened by lessening such food-supply of the molecules as that from which the excess of nitrogen is obtained.

—Ferguson, *Therapeutic Gazette.*

"THE doctors is allways a gettin' up a lot of new names for the diseases that flesh is heir to, and the druggists is a inventin' new nostrils to cure 'em. There's Mrs. Jones has tonsors on her throat, and Mr. Jones has ulsters in his. Miss Smith has hermitage of the lungs, an' her mother has two buckles on her lungs."

Letters to the Editor.

YOUR editorial of December 13 does a manifest injustice to the supervising editor of the *Journal of the American Medical Association*, which you surely will correct when you are possessed of the following facts: 1. The *Journal* and the *Practitioner* are distinct journals, in every particular. 2. The editor of the *Journal* had had no communication with the editor of the *Practitioner* whatever, on the subject referred to; did not know that such an article was to be printed, and only now knows of it as it appears in print.

As innocent of any relation to the matter as is the editor of THE TIMES AND REGISTER, it is presumed that the amend will be cheerfully made.

Very respectfully,

Supervising Editor

Jour. Amer. Med. Ass'n.

THE WEST INDIES.

YOUR correspondent of last week who signs himself "W.," suggests that some "enterprising newspaper or publishing house" in the West Indies should take a few lessons in advertising from the State of Florida, and thus render my work of making the islands known, needless.

In all the West Indies there is not such a thing as a publishing house, except one of very limited capacity in Jamaica, and another small one in Havana, neither of which has shown the slightest sign of energy in pushing their respective islands. There are no "enterprising newspapers" anywhere, and the writer has found it necessary to publish all his books and articles here in America, where push and energy are appreciated, because they are understood.

If the West Indies, with their wonderful beauty and great value as sanitaria, were to be left to themselves to become known, it is the writer's opinion that it would never come to pass.

Very truly,

W. F. HUTCHINSON, M.D.

Book Notices.

WOOD'S MEDICAL AND SURGICAL MONOGRAPHS. Vol. 8, No. 2. November, 1890. The contents of the present volume of this valuable series are as follows: Treatment of Uterine Affections by Massage. By DR. EUGENE ARENDT. Cosmetics; a Treatise for Physicians. By DR. HEINRICH PASCHKIS. Affections of the Stomach in Diseases of the Male Genital Organs. By DR. ALEXANDER PEYER. Published by Wm. Wood & Co., 56 and 58 Lafayette Place, New York.

TREATMENT OF HEMORRHOIDS, AND OTHER NON-MALIGNANT RECTAL DISEASES. By W. P. AGNEW, M.D. San Francisco, Cal.: R. R. Patterson, Printer, 429 Montgomery street. 1890.

This is a plea for the treatment of all forms of hemorrhoids by the injection of a mixture of carbolic, tannic, and salicylic acids, borax, and glycerine. In spite of its bad spelling and grammar, the book is worth reading, in that it gives the experience of a man who has actually practised the method he advocates, even after he has weighed the objections of its opponents. After reading his book we are inclined to think that Kelsey abandoned the injection method too readily.

The Medical Digest.

BOILS MICROBOUS.—In May, 1879, a man working in the laboratory of Pasteur ([13]) was troubled with boils, which reappear at short intervals on various parts of the body. Pasteur collected the pus from a number of these boils and sowed it in sterilized infusions, and each time a microbe, formed of little spherical points connected in pairs, and frequently united in clusters, was seen to develop. The cultivating liquid was sometimes infusion of fowl, sometimes of yeast. New observations were made upon other patients afflicted with boils, and each time the same parasite was found. He concludes that every boil contains an ærobic microbe, and to it are due the local inflammations and the formation of pus.

—Drury, *Cincinnati Lancet-Clinic.*

INFANT FEEDING. — Dr. Sachapelle gives, in *L'Union Medicale du Canada*, the following table to serve as an approximative rule in the feeding of infants. It will be noted that the amounts allowed are larger than those recorded by Dr. Kate Parker as the result of her investigations at the New York Infant Asylum, and quoted by J. Lewis Smith, in his book on children:

AGE.	INTERVALS BETWEEN MEALS.	NUMBER OF MEALS IN 24 HOURS.	MEAN QUANTITY AT EACH MEAL.	MEAN QUANTITY IN 24 HOURS.
First week.	2 hours.	10	1 ounce.	10 ounces.
First to sixth week.	2½ hours.	8	1½ to 2 ounces.	12 to 16 ounces.
Six to twelve weeks, and if needful until five or six months.	3 hours.	6	3 to 4 ounces.	18 to 24 ounces.
At six months.	3 hours.	6	6 ounces.	36 ounces.
At ten months.	3 hours.	5	8 ounces.	40 ounces.

—*Weekly Med. Review.*

IPECACUANHA IN LABOR.—While the accelerating action of ergot in cases of lingering labor is universally known and acknowledged, there is another drug which, so far as I am aware, is not noticed in works on midwifery, and which yet is capable in such cases of rendering signal service; I allude to ipecacuanha. Not only in cases of rigid cervix, where possibly it might be considered to act in a similar manner to antimony, but in cases of simple inertia in either first or second stage, it is a potent instigator of uterine contraction.

In the course of general practice extending over many years, I invariably carried a bottle of vinum ipecacuhanha in my midwifery bag, and rarely, if ever, gave a dose of ergot in the first stage of labor. Time after time on coming to a confinement case where the pains had been feeble and inefficient, or had totally ceased, two or three 10 or 15 minim doses of the wine at intervals of ten minutes have been followed in a surprisingly short time by energetic uterine action, with a rapid termination to the labor. It never produces the quasi-tetanic contraction so often met with as the result of ergot, the pains continuing

to recur regularly just as they do in natural labor, but with greater force and at shorter intervals. Conviction of the value of the drug for this purpose induces me to give my experience of it, believing that its merits will be recognized by any who choose to give it a trial.—Draper, *Brit. Med. Jour.*

STRICTURE OF THE URETHRA IN THE FEMALE.—The occurrence of stricture of the urethra is, in my experience, of extreme rarity; it may therefore be of interest if I relate the following case:

The patient, M. A. L——, aged thirty-two, married eleven years, had suffered for eight years from pain and difficulty in passing water. Seven years before coming under my care, in the Chelsea Hospital for Women, she underwent an operation for the relief of the stricture, in St. George's Hospital, without, however, deriving any permanent benefit. No history could be traced of her ever having had any vaginal discharge. She had, however, passed blood and gravel in the urine, accompanied by great pain, twelve years previously, that is, I should say, one year previous to her marriage. On examination, it was found to be impossible to pass the catheter into the bladder; she was therefore placed under ether, and a uterine sound was finally passed through a small stricture into the bladder. The urethra was then gradually dilated with Hegar's dilators to the size of a No. 12 catheter. During the process of dilatation, the dilators could be felt strongly gripped by the stricture. The day after the operation, the house surgeon was able to pass a No. 8 catheter, which gave rise to considerable pain afterward. The next day, a No. 10 catheter was passed. This was repeated every morning. As the stricture could always be felt lightly grasping the catheter, it was considered advisable to dilate the urethra further. The patient was again placed under ether, when I dilated the urethra up to 8 of Hegar's dilators. From this time she was able to pass water without inconvenience. She was instructed to pass herself a No. 8 catheter, at least once a week. In this case the cause of stricture remains obscure. No evidence could be discovered of any gonorrhœal infection. She had never been pregnant. Nor was there any history of injury to the bladder or urethra. The fact of her having passed gravel and blood, some years previous to the formation of the stricture, goes equally for nothing.

—Fancourt Barnes, *Prov. Med. Jour.*

INTESTINAL OBSTRUCTIONS.—The conclusions, then, that I have arrived at from my experience are as follows:

1. Obstruction of the intestines, the result of constricting bands or volvulus, are always met with either in the small intestine or the sigmoid flexure.

2. The most common cause of bands is old peritonitis, local or general. Meckel's or other diverticula may be the cause of constrictions of the bowel by snaring or twisting.

3. The predisposing causes of volvulus consist in elongation of certain segments of the intestine, abnormal length of the mesentery, adhesions, or unequal peristaltic action.

4. The higher in the intestine the obstruction, the more severe usually are the symptoms.

5. All cases of obstruction should be treated by early abdominal section, and, if possible, reduction of the constricted portion of the intestine, by dividing constricting bands or untwisting a volvulus; that is, if the gentle insufflation of hydrogen gas per rectum fails to effect reduction.

6. In all cases where the intestine is very distended, it should be freely incised and its contents evacuated.

7. In all cases in which the constriction is irreducible, lateral anastomoses by approximation discs should be practised so as to exclude permanently the seat of obstruction from active fæcal circulation.

8. In cases where gangrene has taken place in the loop of constricted intestine, it should be excised, and the portion of intestine above and below the seat of constriction should be united by lateral anastomoses by approximation plates, the divided ends being invaginated into themselves.

9. All bands and diverticula should be removed when practicable at the time of the operation; in the case of volvulus, if the mesentery is abnormally long, it should be shortened.

10. That enterostomy, or the formation of an artificial anus, should never be performed, unless it is found to be absolutely impracticable to re-establish the continuity of the intestinal canal by enterorrhaphy, or by means of lateral apposition as described, on account of the collapsed condition of the patient, or other cause.—Jessett, *Prov. Med. Jour.*

TOLERATION IN MEDICAL ETHICS — We take the following from an editorial in the *New York Medical Times*. Although the tendency of the age is certainly towards toleration, and while theoretically every man has a perfect right to his own opinions and to act in accordance with them as long as they do not interfere with the rights and privileges of his neighbors, there is still enough of the old spirit in the medical profession to make it very unpleasant for the man who preaches toleration. Dr. Guernsey has been in somewhat the position of Mr. Pickwick, when he attempted to separate the fighting editors, and both united in pummeling the peacemaker:

"We are in receipt of a private letter from a professor in a leading 'regular' college, from which we extract the following, as an indication of a feeling which is rapidly gaining ground. He says:

"'For the regular colleges to refuse to regraduate those having a degree from the Hahnemann Medical College, of Philadelphia, on the same terms that they will those of other regular colleges I, for one, deem an act of folly. They ought to be glad of the opportunity of having the young men, at the very outset of their careers, discountenance creeds and adopt the methods of science.'

"We are in receipt also of a letter from a professor in a homœopathic college which says: 'I believe the day will come when the profession will be educated up to the point when sectarian distinctiveness will be dropped.'

"Within the last few months we have conversed with a large number of recent graduates of homœopathic colleges, and every one of them has complained of the position in which they are placed by their sectarian diploma.

"The graduate of a distinctively homœopathic school is sadly handicapped on many accounts, and so long as the *great majority* feel as they do in respect to sectarian designation, no change for the better can be expected.

"Is it right and just toward a student to place him in a position where he may be embarrassed, particularly at a critical moment? Suppose a graduate of a homœopathic college desires to enter the U. S. army or navy, he will find himself embarrassed at the very outset! Preceptors should bear these facts in mind, when advising a student to enter a medical school!"

PROGRESS IN ABDOMINAL SURGERY.—Perhaps no branch of our art has had a greater attention paid to it, or made more satisfactory progress in the last ten years than abdominal surgery. In this paper I have nothing new to offer the profession, my endeavor being simply to enumerate some of the changes in the mode of management by which we have gained a high degree of perfection, as is evidenced by our present statistics. But our advance is not limited to results alone as compared with the work of surgeons at that time, for we now perform operations with impunity every day that they never attempted; or if they did it was more as a result of mistaken diagnosis. There is hardly any limit to the field of the surgeon in these days; it includes injury or disease of every organ in the abdominal cavity, and even the old time feared peritoneum itself, while ten years ago the knife of the operator was almost exclusively restricted to ovariotomy alone. Wounds of the various organs are now cut down upon, washed clean, stitched and dressed, with comparative ease and the results are marvelous. Even where the wound cannot be found (as in intestines it sometimes occurs), the assistance we offer nature by thorough cleansing and drainage greatly increases our chances of success.

—Thompson, *Weekly Med. Review.*

TREPHINING FOR EPILEPSY. — There are three main indications for trephining in epilepsy that hold good, provided medical treatment or the removal of peripheral irritation by other methods fails to cure or relieve.

1. In the distinctly tragmatic epilepsies following depressed fractures and other lesions of the skull.

2. In the traumatic epilepsies in which the only visible lesion consists of a scalp wound that is sensitive or tender, and upon which pressure develops either an aura, vertigo, or an epileptic seizure.

3. In all epilepsies, whether traumatic or not, in which the character and development of the seizures is such as to indicate a definite motor area as the seat of a cortical lesion.

The contra-indications, he went on to say, were, in brief, those that might be applied to cases of such long duration as to lead to marked mental degradation; to cases in which from the first the seizures had been general and sudden; to cases where the general symptoms indicated an extensive cerebral degeneration, and to cases where, in addition to any or all of these conditions, there was nothing in the symptoms or history of the case to indicate a definite or circumscribed lesion of the cortex that could be reached and removed.—Minor, *Boston M. and S. Jour.*

DEATHS FROM ANÆSTHETICS.—Dr. Robert Kirk, of Glasgow, in a letter addressed to the *British Medical Journal*, says:

The continued prevalence of deaths from these agents renders of pressing importance the inquiry whether every possible source of danger from them is known to the entire profession. What is the cause of the primary syncope, which may be produced, not only by chloroform and methylene, but even in some rare cases by ether? In "A New Theory of Chloroform Syncope, Showing How the Anæsthetic Ought to be Administered," I have ventured to offer a new explanation of the catastrophe which, unless it can be refuted, deserves serious consideration. According to this theory, this form of syncope is not caused by chloroform in the blood. On the contrary, it is maintained that there is not a trace of the poison there when the syncope occurs. It is urged that it is due to the violent reaction which ensues in the circulation when the vapor is allowed to escape from the lungs at too early a stage of the inhalation—a process which occupies not much more than ten seconds if the patient is allowed to breathe fresh air during the first minute or two. This reaction is characterized by an extremely rapid action of the heart, with a liability to terminate in syncope. This violent reaction proves that the vapor was previously exercising a powerful influence in the lungs and respiratory tract—an action probably attended, through reflex mechanism, with inhibition of the heart. If there be any truth in this view, therefore, it follows that the administrator who allows his patient to breathe fresh air for fifteen or thirty seconds before deep anæthesia is reached, incurs the danger of reaction and syncope. It is the presence of a sufficient amount of chloroform in the blood which prevents the reaction which would otherwise ensue when the vapor leaves the lungs.

DIET FOR DIABETICS.—

ALLOWED.	PROHIBITED.
All kinds of meats (except liver). Poultry, all kinds of game.	Liver.
All kinds of fish, fresh or salt, sardines.	Sugar, in any form.
Oysters.	Starch, in any form.
Eggs in any style (without addition of flour, starch, or sugar).	Sauces containing flour, sugar, or starch.
Fats and fatty meats.	Cakes of all kinds.
Butter, cheese.	All cereals, such as cracked wheat, oatmeal, mush, cerealine, etc.
Soup (without flour or the prohibited vegetables).	
Celery, cabbage, cauliflower, string-beans, asparagus, lettuce, spinach, mush-rooms, radishes, cucumbers (green or pickled), young onions, water cresses, slaw, olives, tomatoes.	Potatoes (either Irish or sweet), corn, carrots, turnips, hominy, parsnips, beans, peas, beets, rice.
Graham bread, rye bread. Occasionally stale light (white) bread.	White bread, corn bread, white biscuits.
Acid fruits, such as oranges, lemons, apples, plums, cranberries, currants, cherries, strawberries, gooseberries (sweetened, not with sugar, but with saccharine and sod. bicarb.).	Pears, peaches, grapes.
Gelatine (without sugar).	Sweet jellies.
Almonds, walnuts, Brazil nuts, hazelnuts, filberts, pecans, butternuts, cocoanuts.	Chestnuts.
Salt, vinegar, pepper.	
Drinks: Coffee, tea (without sugar), skim-milk, cream, soda-water (without syrup), mineral waters of all kinds, but especially vichy.	Malt liquors, beer, ale.
Claret, Rhine wine.	

—Lewis, *Weekly Med. Review.*

HINTS ON TREATMENT OF ULCERS OF THE CORNEA.—Some surgeons apply nitrate of silver to indolent ulcers, but this is a proceeding very rarely called for; and when sharp stimulation is demanded, I have found the use of the actual cautery (considerably below red heat), more beneficial and less dangerous.

Again, in cases of corneal ulceration, accompanied by blepharospasm and fissure, atropine *alone* is sometimes disappointing; and, short of dividing the tissues at the affected canthus, other local means may be employed, *e. g.*, a seton in the temple, or a good blister an inch from the fissure. When no fissure exists, painting the brow every other day with tincture of

iodine may suffice to allay spasm. But such treatment without atropine is practically valueless.

The cases in which atropine would be considered harmful, and in which eserine is so often substituted, are those in which the tension of the globe is decidedly above normal; or in which perforation is threatened by a deep ulcer, in consequence of increased pressure from within. Admitting that atropine may be here out of place, paracentesis of the anterior chamber, either through the base of the ulcer, or at some other point, will probably give more relief, and yield better results than treatment by eserine. Eserine is largely employed in the treatment of hypopyon ulcer; here, again, atropine and paracentesis of anterior chamber are more satisfactory. It is only in case of failure with atropine that I fall back on eserine.

Some patients are peculiarly susceptible to the influence of atropine, and very soon show signs of the characteristic "irritation." Cocaine in castor oil—a five per cent. solution—may here advantageously replace the toxic agent until all signs of atropism have passed away, when it may be again ordered, but in reduced strength.

When a corneal ulcer produces severe pain, hot belladonna fomentation (one drachm of extract to a pint of hot water) may be applied on a pad four or five times a day—one quarter of an hour at a time—instead of atropine drops. But a little atropine ointment (four grains to the ounce) should be placed between the lids at night.

As an additional measure in very painful cases, three or four leeches to the temple often act like a charm. With all corneal ulceration there is *more or less* photophobia, and bright light must, therefore, be excluded. Pads and bandages are much more injurious than useful, for they keep the eye hot, and act very much like poultices. A large paper or card shade over both eyes is the very best method of keeping off light.

—A. St. Clair Buxton, in *The Hospital Gazette.*

Treatment of Puerperal Fever.—The present unanimity of treatment of this disease is curious. Most articles on the subject seem to wind up with curetting the uterus and bichloride irrigations. This monotony of treatment is broken, however, by differences of opinion relative to the percentage of the bichloride.

The young man must feel as though he had not discharged his duty to his patient, unless he has scraped the uterine cavity and irrigated the same with bichloride. I do not criticise the curetting of the uterus, when it is necessary, but I do not think it is so very often necessary, and that frequently it is harmful rather than advantageous.

In regard to bichloride of mercury irrigations, I must say, I have been unfortunate in not having seen any remarkably good results from their use. I do not criticize the cleansing of the uterine cavity, but I think we have a better agent in iodine.

Iodine may not be the most powerful germicide, but its wide range of curative powers, in removing inflammations, healing sores, and alterative action, makes it the better agent.

Bichloride of mercury is, undoubtedly, a good antiseptic for hands and instruments; they will be less colored by it than by iodine—then, again, the hands and instruments differ widely from the diseased parts of the patient.

Treatment is determined, in great measure, by the tissue system which is predominently affected. There may be inflammation of the mucous membrane of the genitals only, or there may be inflammation of the uterine parenchyma, or inflammation of the peritoneum, covering the uterus and contiguous parts, or a phlebitis with pyæmia or a septicæmia, or an absorption of ptomaines with toxic effects—all these conditions are to be met with good judgment.

Dorr, *Buffalo Med. and Surg. Jour.*

Diphtheria.—It is submitted that there is good reason for thinking that the diphtherial poison—when it enters the patient's body in an extreme dose—kills him outright (with the symptoms of malignant diphtheria) by paralysing the heart, by its action on the vagus, in exactly the same way as an overdose of nicotine would do. In the heart-failure of blood-poisoning there certainly are two ways at least whereby the weakness of the heart can come about; either the special poison acts on the nervous apparatus of the heart, or the state of the blood is so altered for nutrition that the muscular fibre of the heart gets feebler and feebler, and a time comes when it refuses to act at all—the heart stopping full of blood in diastole. The latter condition is probably the predominant cause of the asthenia of sapræmia: both possibly have some, but I think the former far the larger share, in causing stoppage of the heart in malignant diphtheria. And the ante-mortem clots which observers have found in the chambers of the heart in cases of diphtherial syncope are doubtless due to the weakened action of the heart, and would themselves serve as a fresh source of embarrassment.

Also, when smaller doses of the poison are taken (as in uncomplicated cases such as have been related above), a gradual depression of the heart's action takes place, due likewise to the action of the poison on the vagus, and death occurs by syncope. And, as would be the case in nicotine-poisoning, whether death were brought about by one fatal dose or by several smaller ones, no appreciable pathological change has been found in the nerves in either the malignant or the more ordinary cases of syncope in diphtheria. Later on in the disease, indeed, in special persons (just as in lead- or alcohol-poisoning), but, as it is contended, simply as a *continuation* of the same process, this irritation of the vagi and other nerves produces definite traces of its presence by the inflammation of their branches. Lead-poisoning affects generally nerves whose rôle is not the immediate preservation of life; luckily, perhaps the same remark will apply to alcohol-poisoning in its more chronic forms, but when, as with diphtheria, a poison acts almost directly on the heart, it is obvious that many must get killed by it who would otherwise have suffered from diphtherial paralysis; in other words, that personal idiosyncrasy acts as much in determining the immediate or remote affects of a dose, as it does in making the person susceptible to the disease at all. And it is noteworthy in this connection that the paralysis is more common in adults and in those who have been hard worked mentally and bodily.—E. Mansel Sympson, in *Practitioner.*

On Splints.—Speaking of fractures of the lower end of the radius, Dr. John B. Roberts says:

The danger of many of the splints advocated for this fracture is due to the non-recognition by their respective inventors of the curved or arched shape of the palmar surface of the lower third of the radius. The dorsum of the bone when covered with the tendons is straight, but the palmar surface is curved. It is readily understood, therefore, that the application of any straight splint (such as that called Bond's splint) to the palmar surface of the broken radius has

a tendency to displace the lower fragment upward again, as soon as the bandage which retains the splint in position is applied. A straight splint may, however, be applied with propriety to the back of the wrist. I have used with satisfaction two or three pieces of whalebone held in position by a strip of adhesive plaster. Any rigid article, such as a piece of steel or wood, half an inch wide and five or six inches long, will answer the purpose. The truth is, however, that in a person of ordinary intelligence, who will avoid subjecting the bone to severe strains, there is no need of any splint or rigid support. Exceptions to this rule may perhaps be found in the case of refractory children and of ignorant or stubborn adults. The fact that these persons are liable to use the hand at an early period, and in such a way as to cause a *slight* risk of displacement of the fragments, is evidence of the simplicity and painlessness of the injury and of the satisfactory manner in which union takes place, if reduction has been properly effected.

—*Medical News.*

Further Researches by Koch.—Sir Joseph Lister has returned from a visit of a few days to Berlin, where he has had the opportunity of witnessing the action of Koch's treatment of tuberculosis; and on Wednesday in King's College Hospital he related his impressions regarding it. He spoke of the effects produced by this treatment upon tubercular disease as simply astounding, both in its curative effect and its diagnostic value. He combated the statements which had appeared from time to time in certain publications, to the effect that it was impossible for the dead portions of tissue resulting from the treatment to be got rid of by other than surgical means; he stated that provided these portions of tissue were preserved from septic agency, they need not necessarily be separated from the living body, as they were eliminated by absorption in the same manner as a catgut ligature. There was no reason to suppose that the fact of this tubercular tissue being destroyed would make it incapable of absorption. He compared the action of Koch's fluid with that used by Pasteur in the case of anthrax, an injection of which gave complete immunity from this disease, and he hoped that Koch's future researches would result in showing the remedy capable of acting on human beings so as to give them complete immunity from tuberculosis.

There was another line of research from which he hoped for good results in the direction of immunity. Through the kindness of Prof. Koch he had the opportunity of visiting the Hygienic Institute of Berlin, and of seeing most beautiful researches being carried on in that institution, of which he was the inspiring genius. Those researches were now going on, and fresh facts were accumulating day by day. They had not yet been published, and he was not at liberty to mention any details, but there could be no harm in saying that he saw, in the case of two of the most virulent infectious diseases to which man is liable, that the injection under the skin of a small quantity of a material, perfectly constant in character—an inorganic chemical substance as easily obtained as any other article in the materia medica—cut short these two formidable diseases in the animals in which they were performed. These same animals were rendered incapable of taking the disease under the test of the most potent inoculations. He suspected that before many weeks were passed, if it should be found that the same results could be produced on man—though experience of what was known of the different behavior of Koch's fluid in guinea-pigs and in man makes this a matter of uncertainty until tested by experiment—the world would be startled by the magnificence of these researches, which would be recognized on every hand.—*Lancet.*

Clinical Observations on some New Pharmaceutical Preparations.[1]—Dr. R. Harvey Reed, Mansfield, Ohio, says:

"Every age in medicine and surgery has had its fanatics, who seemed to live for little else excepting to ride some particular hobby to death; whilst, on the other hand, every age has had its old fogies who would rather perish than turn an inch to the right or left of the old time-worn rut of their forefathers.

"The hundreds of worthless 'new remedies' that are placed before the profession for their patronage from year to year, is enough to disgust them with all new remedies. It seems to me that many of our manufacturing chemists spend the bulk of their time seeking for something that is *new*, regardless of its real merits or value.

"If only they can strike the profession with a 'new remedy' of some description or other, they are perfectly happy.

"But with all these criticisms we must admit there is now and then a new remedy comes to light which has real and lasting merit, which in a large degree atones for the defects of many of its worthless compeers."

Then after referring most favorably to the non-irritating preparation of cascara sagrada, prepared by Mr. J. Le Roy Webber, Ph. G, the author makes the following statement as to his experience with pancrobilin:

"In this direction, however, we have another 'new remedy' which has gradually ingrafted itself into my good graces, which is becoming more and more permanent the longer I use it. This is what is known as 'Pancrobilin' and is a combination of pancreatin and bile, and placed upon the market in the form of a liquid and a pill, of which two I consider the latter more preferable.

"In cases where there is a diminished quanity, or even an absence, of these natural products, especially the bile, resulting in the distressing complication of intestinal or duodenal indigestion, I have found this preparation of decided value by assisting the intestinal digestion until the normal functions of the liver and pancreas, but especially the former, could be established.

"In constipation attended with flatulence, the result of an inactive liver, I have found this remedy of great value, promptly relieving the flatulence, and producing natural colored stools of a normal consistency, in place of the pale ash colored fæces, or the dry, hard scybala, of the chronic dyspeptic.

"After a careful trial of some three years in a variety of cases affected with constipation resulting from congestion of the liver, and in cases in which there is an atonic condition of the coats of the bowels resulting in intestinal indigestion, I am frank to say that I know of no two remedies that will give as prompt relief to these conditions as the ones under consideration.

"In the one class of cases the pancrobilin supplies the intestine with an artificial supply of bile and pancreatin, which digests the food that otherwise would not be digested, thus giving relief until the real difficulty with the liver can be overcome. In the other class of cases the cascara sagrada tones up the intestine, increases the secretions, which in turn facilitate digestion, and relieves the constipation."

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[1] Read before the Thirty-fourth Quarterly Meeting of the North Central Ohio Medical Society, held at Mansfield, Ohio, September 26, 1890.

Medical News and Miscellany.

THE cholera still rages in Spain.

A SUPPOSED case of leprosy has appeared at, and disappeared from, Defiance, Iowa.

DR. THOMAS G. BRINKLEY has removed from Reading, Pa., to Sinking Spring, Berks Co., Pa.

EDINBURGH has recently been a prey to an epidemic of typhoid fever which had its origin in the pollution of the milk.

THE first death from the effects of Koch's lymph in New York is that of an infant suffering with tubercular meningitis; a patient of Dr. Jacobi's.

MILWAUKEE doctors are said to enjoy the exclusive possession of a specific for "black diphtheria," imported from Germany by a druggist, and employed with "astonishing success."

IT is stated that a meeting of the Board of Trustees of the *Journal of the American Medical Association* will soon be held, in order to take action upon the question of removing the *Journal* to Washington.

DRS. GIBBES AND SHURLY, of Detroit, are alleged to have discovered a "sure cure" for consumption; acting even in the later stages. It is said to be the outcome of work on a different line from that of Koch.

THE London Hospital Sunday Fund Collections for the past year amounted to over $200,000. Of this sum ninety per cent. came from church collections. The expenses amounted to $9,000; and the balance was distributed among 169 institutions.

IN the Chamber of Deputies at Paris, last week, M. Despres proposed that the Government restore the nuns to their former position as hospital nurses. M. Constans, Minister of the Interior, opposed the proposal, and argued in defence of lay nurses.

AT the last M. B. examination of the University of London, nine female candidates went up, of whom every one passed—five in the first grade, and four in the second. At the same time, sixty-nine male candidates presented themselves, of whom fifty-two were successful.

PROFESSOR KOCH has been elected honorary fellow of many medical societies in Europe, *e. g.*, at Vienna, Prague, Buda Pesth, and elsewhere. The freedom of Wollstein, in Posen, where he was in practice, has been bestowed on him, and a tablet points out the house he occupied.

SOUTH LAKEWOOD PARK, N. J., Dr. J. B. de Lery's electric city, received very handsome endorsements from the New York *Times* and *Tribune* in last Sunday's editions. Each paper devoted about a third of a column to the new city, which is progressing finely in the line of disposing of sites.

DR. F. O. VINCENT last week entered the residence of his separated wife, in Fresno, California, and shot her through the heart. He was arrested and became unconscious on the way to jail, having apparently taken poison. Dr. Vincent graduated at Cooper Medical College, in 1878.

DR. C. C. VANDERBECK has established at 216 Leavenworth street, San Francisco, a private home hospital, called The Hygeia. All classes of cases, excepting contagious diseases and the insane, are admitted, and the patients may have the attendance of their own physician when desired. It deserves the confidence of physicians and the public.

—*Pacific Med. Journal.*

IN a physician's office: "I say, doctor, I wish you'd fix me up something for my stomach trouble. I've got something inside that first comes up and then goes down and then comes back again, and—faught! it makes me sick to think of it."

Doctor: "You don't mean to say that you've accidentally swallowed an elevator?"

THE widow of General Custer says that he was the first of American army officers to experiment on the rattlesnake as an entrée. His cook prepared the dish under protest, and as the general was eating the dainty he saw the alarmed negro cautiously peering in through a crack of the tent, doubtless expecting to see his master drop down in a fit.

VITAL statistics from some of the largest English towns show a slight percentage of decrease of mortality in the week ending December 6, over the three weeks previously. The following were some of the causes of death: 172 from measles, 64 from scarlet fever, 58 from diphtheria, 51 from diarrhœa, 42 from whooping-cough. 48 of the diphtheria cases were in London.

THE Chicago Medical Association met at the Grand Pacific, Monday evening. The meeting was largely attended. The first paper was an exhaustive treatise, entitled: Studies in Chronic Retro Ocular Neuritis, by C. M. Hansen, M.D. Patients were exhibited in connection with the paper. Dr. Hansen was followed by Dr. L. T. Potter with an instructive and entertaining article on the Influence of the Mind upon Disease.

THE deaths in St. Louis, during November, numbered 576, representing an annual death-rate of 15.02 per 1,000. The principal causes of death were: phthisis, 62; heart disease, 37; convulsions and trismus, 33; old age, 32; accident, 23; malarial, 22: hepatitis, 21; bronchitis, 30; pneumonia, 18; typhoid fever, 16; diphtheria, 15; croup, 14; scarlatina, 5; cancer, 15; marasmus, 15; gastro-enteritis, 15; Bright's disease, 15.

SANITARY administration means not only personal comfort and health in the family, but economy to the State and family. Two hundred and fifty thousand lives lost, three million cases of sickness and $20,000,000 in money are traced, in one decade in England alone, to neglect of sanitary care. The sword and musket are terrible ministers of death, but even in armies, where battles kill one person, disease kills at least three.—*Hon. Erastus Brooks.*

THE city of Memphis, Tenn., formerly noted for its bad sanitary condition, has been improved in an extraordinary degree, partly by an improved system of sewerage, but chiefly by a supply of pure water. The city water was formerly drawn from wells and cisterns, and later from Wolfe river, but in both cases the surface water which yielded the supply was of very poor quality and contained many impurities, making it unfit for use and a constant cause of disease. Recourse was at last had to artesian wells, and it was found that at a depth of about 350 feet there was a stratum of water bearing gravel, the water being of exceptional purity and abundant in quantity. It is believed that any future increase in requirements can be met by increasing the number of wells.

An Italian professor has, after many experiments, come to the conclusion that "whitewash," freely applied on the walls of dwellings, is one of the most effectual destroyers of microbes and fever germs we have. It is satisfactory to know this, as it shows that our grandfathers, whose ideas of disinfecting dwellings began and ended in whitewashing, inside and out, were not groping in the dark after all.

The directors of the Dental Protective Association held a meeting at the Grand Pacific Hotel, December 17. The meeting was called for the purpose of putting a stop to the abuses practised against dentists by patent medicine organizations which blackmailed dentists and made them pay a royalty on medicines. The following directors were elected: Dr. J. M. Crouse, Dr. E. P. Swaine, and Dr. P. W. Brophy.

—*Chicago News.*

Weekly Report of Interments in Philadelphia, December 13 to December 20, 1890:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess	5		Inflammation bladder	1	
Alcoholism	1		" kidneys	3	1
Asthma	1		" laryux		3
Apoplexy	14		" liver	1	
Bright's disease	7	1	" lungs	38	12
Burns and scalds		1	" heart	3	
Cancer	6		" peritoneum	3	3
Casualties	9	1	" s. & bowels	4	1
Cerebro-spinal meningitis		1	Insanity	2	
Congestion of the brain	1	3	Inanition		7
" " lungs		4	Jaundice	1	
Collapse of lungs		1	Locomotor ataxia	1	
Cholera infantum		1	Marasmus	2	6
Consumption of the lungs	38	9	Old age	13	
Convulsions		13	Obstruction of the bowels	1	1
Croup		12	Paralysis	8	1
Cyanosis		3	Poisoning	2	
Debility	1	4	Rheumatism		1
Diabetes	2		Septicæmia	2	
Diphtheria	1	11	Softening of the brain	2	
Disease of the kidneys	1		Suffocation	1	1
Disease of the heart	26		Suicide	1	
Dropsy		2	Syphilis	1	
Erysipelas	1	2	Tabes mesenterica		1
Enlargement of the heart	2		Teething		1
Fatty degeneration of the heart	5		Tetanus		2
Fever, scarlet	1	11	Tumor	1	
" typhoid	5	1	Ulceration of the bowels	1	
Hemorrhage	1		Uræmia	2	
Hernia	2		Whooping-cough		4
Inflammation brain	3	8	Total	235	144
" bronchi	8	10			

A case of scarlet fever at Sioux Falls, S. D., will probably cause trouble. A few days ago Mrs. D. W. Culp died of that disease. Health Officer Brown later learned incidentally that another case had developed in the family and instituted a quarantine. He has just discovered that the case has been in the hands of Christian scientists, who ignored his notice and sent other children of the family to school. The superintendent of schools was notified yesterday and the Christian scientists will probably be prosecuted.

The experiments of Dr. Charcot, in Paris, have been cited to prove the magnet's mesmeric value. This celebrated specialist did obtain some striking results with a sensitive hypnotic subject under the influence of a magnet. Dr. Charcot not long after repeated the same experiments with the same subject, using, however, a dummy magnet made of painted wood, instead of the real one he had used before. He obtained the same hypnotic results, showing very clearly and positively that magnetism had "nothing to do with the case."

The danger of hypnotism in affording criminals the means of escaping from the legal consequences of their acts, is exemplified in the trial of Gabrielle Bompard, just completed in Paris. A more cold-blooded murder never was committed; and now the woman who lured the man to her den, and placed the fatal rope around his neck while lavishing feminine endearments upon him, seeks to make the court believe that she was at the time in the hypnotic state, and controlled by her accomplice. The result has shown that French courts are not as credulous as jurors in this country.

A patent floating disinfectant, which has recently come into use, appears to possess the three very essential advantages of efficiency, simplicity of application, and uniform solution. A mixture of carbolic acid and other disinfectants in a solid form is so prepared that it will float in water. This melts slowly in the water, and is always visible and accessible. The uniform rate of solution adapts it specially for use in closets. All that is necessary is to place a block of it in the water cistern supplying the closets. All danger of blocking up the pipes is avoided, as the disinfectant is always on the top of the water.

Patents, etc., on medical subjects, issued December 16, 1890:

Ammonia-still	F. Kaiser	Knoxville, Tenn.
Atomizer	J. Schoetti	Brooklyn, N. Y.
Capsule press	F. W. Perry	Philadelphia, Pa.
Draft-tube for effervescing drinks	W. P. Clark	Medford, Mass.
Liniment	D. Meinen	Warrenton, Tex.
Device for facilitating pills	J. Yates	London, England.
Syringe	E. Bartsch	San Francisco, Cal.

TRADE-MARKS.

Liquid perfumery. (The words "Sweet Chimes")	French, Richards & Co	Philadelphia, Pa.
Liquid perfumery. (The words "White Musk")	French, Richards & Co	Philadelphia, Pa.
Pine essence for external use in disease. (The word "Pumiline")	G. & G. Stern	London, England.
Remedy for hay-fever. (The word "Peshall's")	G. L. Wilms	Jersey City, N. J.
Medicated tablets for female diseases. (The words "Oak Balm")	G. L. F. Hager	South Bend, Ind.
Remedy for epilepsy and other nervous diseases. (The representation of a fountain and landscape; the words "Samaritan Nervine," and the motto "In God we trust")	S. A. Richmond	Tuscola, Ill.
Remedy for small-pox. (A monogram of the letters "J. L. S.," and the signature of "Jose Leandro Suasnavar" written across it)	J. L. Suasnavar	New York, N. Y.
Lime-water preparations. (The word "Anticidine")	T. Metcalf & Co	Boston, Mass.
Disinfectants. (The word "Lysol")	Schulke & Mayr	Hamburg, Germany.
Remedy for catarrh. (The word "Oswi")	J. Stackhouse	Philadelphia, Pa.

LABELS.

"White Musk" (for perfumery)	French, Richards & Co	Philadelphia, Pa.
"Peshall's Remedy for Hay-Fever"	G. L. Wilms	Jersey City, N. J.
"Noyes' Granular Effervescent Magnesia Sulphate"	The P. J. Noyes Manufacturing Co	Lancaster, N. H., and Boston, Mass.
"Cream of Almonds" (for the toilet)	Van Dyke Bros	Philadelphia, Pa.

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TO CONTRIBUTORS AND CORRSEPONDENTS.

All articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

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